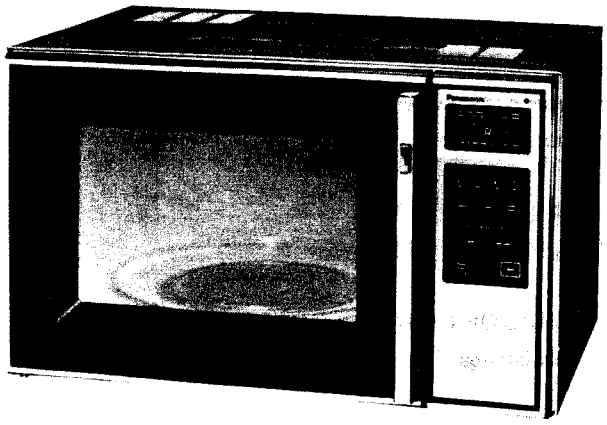
ORDER NBR. MOD-7904-003

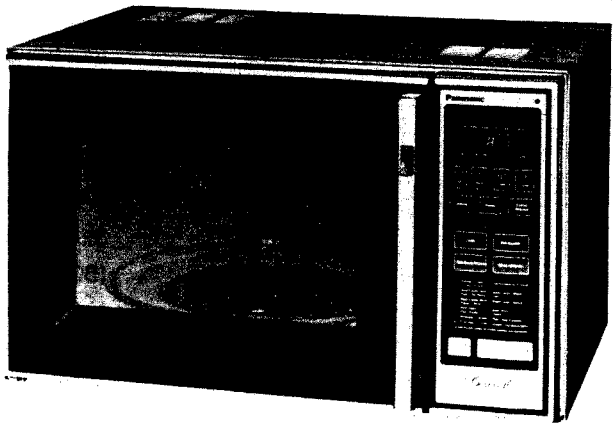
Service Manual

Microwave Oven

NE-7920, NE-7920C
NE-8020



NE-7920, NE-7920C



NE-8020

NE-7920, NE-8020 for U.S.A.
NE-7920C for Canada
SPECIFICATIONS

Power Source:	115V AC Single Phase:60 Hz
Power Requirement:	1.42 KW (13.0 A)
High Frequency Output:	700 W : full power
Oscillation Frequency:	2450 MHz
Magnetron:	2M157-M2
Timer:	99 minutes 99 seconds
	9 hours 99 minutes for Low power
Cooling Method:	Air Cooling
Approximate Outside Dimensions:	24-3/4" (W) x 18-1/2" (D) x 14-3/4" (H)
	63.0 cm (W) x 47.0 cm (D) x 37.5 cm (H)
Approximate Oven Cavity	15-1/2" (W) x 15-1/2" (D) x 9-1/2" (H)
Dimensions:	39.5 cm (W) x 39.5 cm (D) x 24.0 cm (H)
Approximate Weight:	71 lbs
	32 Kg

Specifications subject to change without notice.

Panasonic®

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WARNING

1. This product should be serviced only by trained qualified personnel.
2. Though this product has been manufactured in compliance with:
   "Federal Performance Standard 21 CFR Subchapter J" (HEW): NE-7920, NE-8020
   or "Radiation Emitting Devices Act" (NHW): NE-7920
   it is very important when servicing to avoid being exposed to excessive microwave radiation. This may be hazardous. All repairs shoud be made in accordance with procedures described in this manual.
3. Check for radiation leakage after every servicing according to the "procedure for measuring radiation leakage" on pages 21 & 22.
4. Any serviceman who learns of any accident pertaining to microwave radiation leakage should immediately notify the appropriate address listed below.

IN U.S.A.	PANASONIC COMPANY Division of Matsushita
(MECA)	Electric Corporation of America
	One Panasonic Way,Secaucus,New Jersey 07094
	Attention:Quality Assurance Dept.
	(201) 348-7000
IN HAWAII	PANASONIC HAWAII, INC.
(PHI)	320 Waiakamilo Road, Honolulu, 96817
	(808) 847-5361
IN CANADA	MATSUSHITA ELECTRIC OF CANADA LIMITED
(MELCA)	5770 Ambler Drive, Mississauga, Ontario, L4W 2T3
	(416) 624-5010

5. There are special components used in the microwave oven which are important for safety. These parts are shaded on the schematic diagram and on the replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent microwave leakage, shock, fire, or other hazards. Do not modify the original design.

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INSTALLATION

1. Check the grounding.
2. Confirm the power source capacity.
3. Use the microwave oven in an ambient temperature of less than 104°F(40°C).
4. Avoid using the microwave oven where humidity is high.
5. Position the microwave oven away from radios,TV'S, etc.
6. Place the microwave oven on a stable base.
7. Avoid placing anything on the top cover of the microwave oven that may interfere with the exhaust vents.

OPERATION

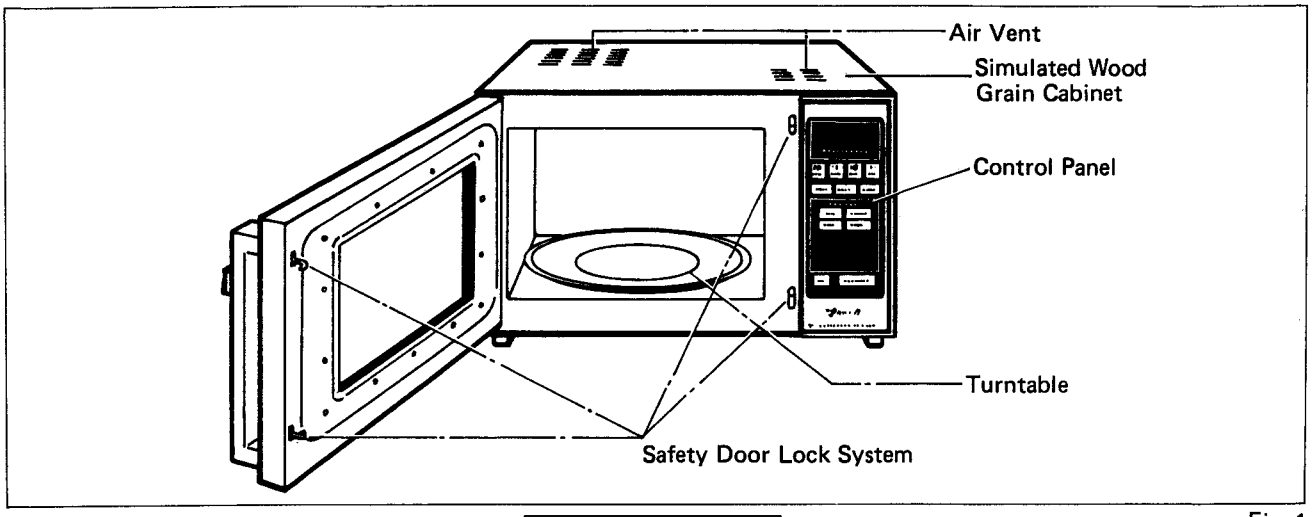


Fig. 1

CONTROL PANEL

NOTE: Model NE-8020 is provided with a capacitive touch control panel. A membrane push switch control panel is used for models NE-7920 and NE-7920C.

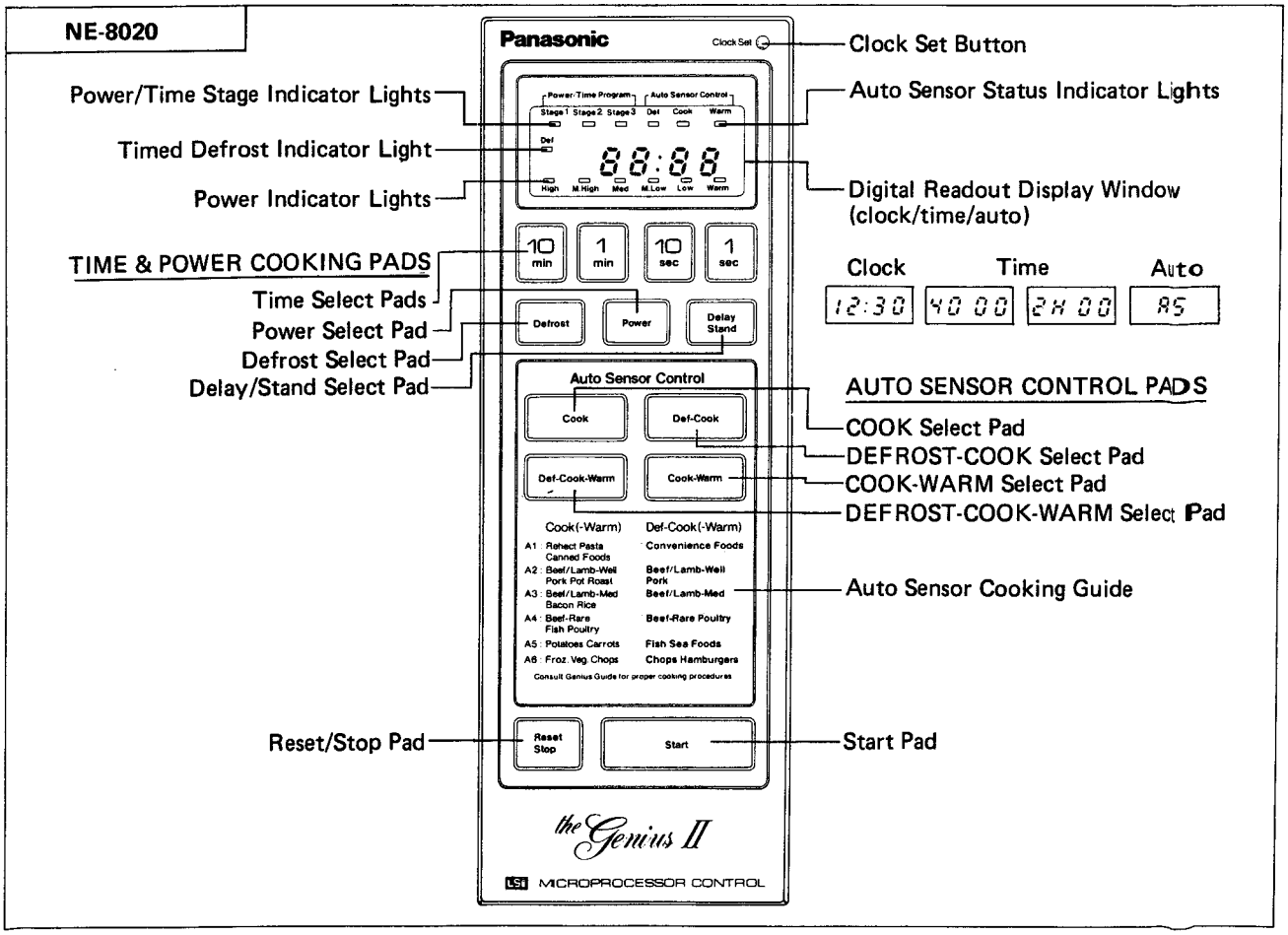


Fig. 2

NE-7920, NE-7920C

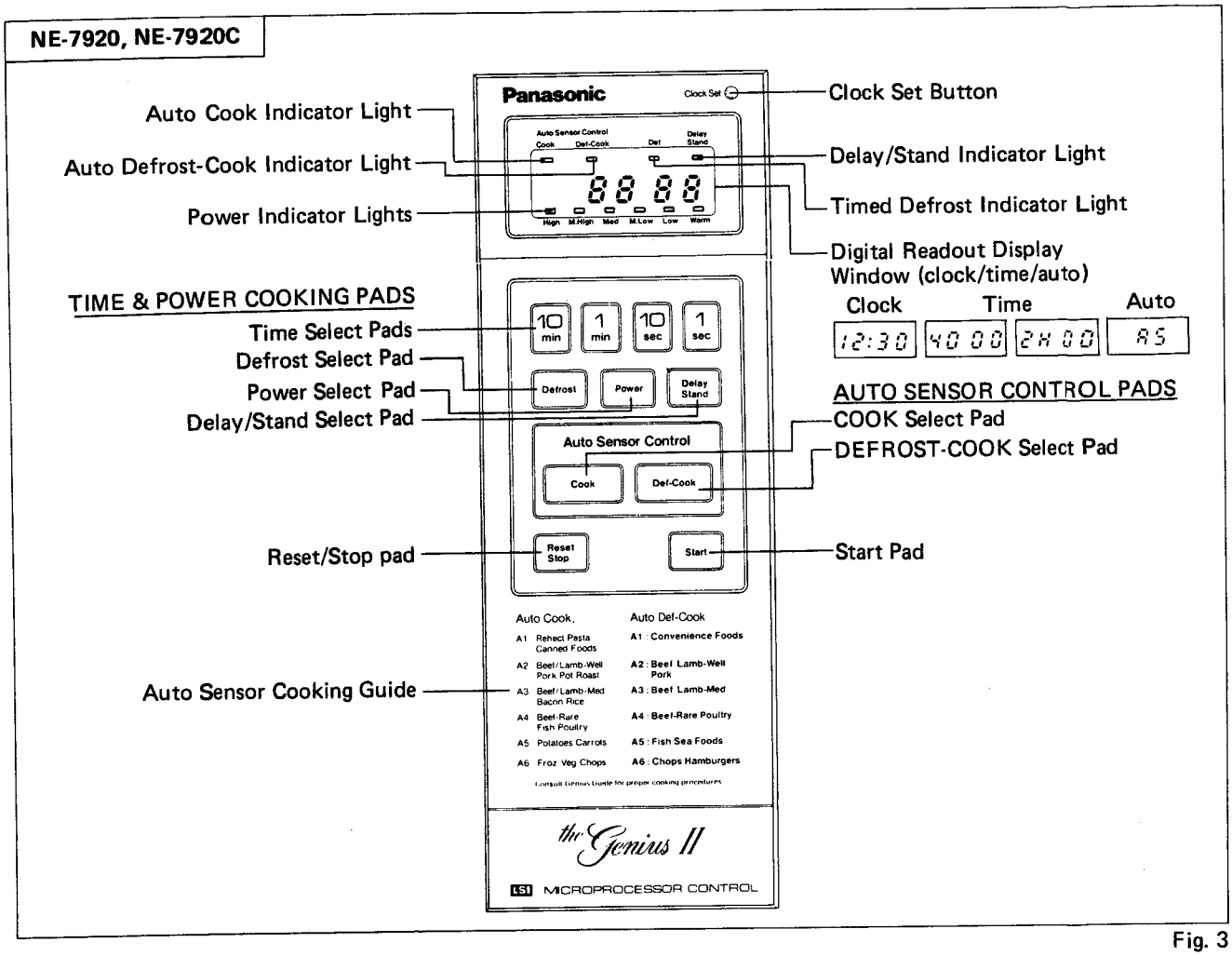
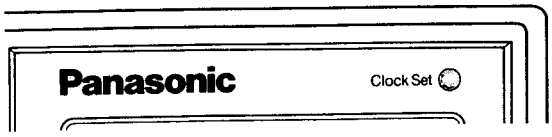


Fig. 3

NOTE: When the oven is first plugged in, Reset/Stop pad should be tapped to clear the display window or indicator lights.

CONTROLS



Clock Set Button

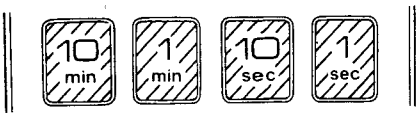
When oven is first plugged in, the Display Window will show 00:00 and the colon will blink. Enter the time of day (TOD) by tapping the appropriate Time Select Pads.

Example: If it is 10:25 (a.m. or p.m.), tap the 10 min. pad once, the 10 sec. pad twice, and 1 sec. pad 5 times. The Display Window will show 10:25 with the colon blinking.

Push the Clock Set Button. The colon stops blinking. The clock is set and will keep the TOD as long as the unit is plugged in and electric energy is supplied.

NOTE: To reset the TOD in the Display Window, push the Clock Set Button again to clear the time. Zeros (00:00) will appear with the colon blinking. Enter the correct TOD by following the above procedure.

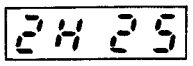
Timer Select Pads



min. min. sec. sec.···Basic Time Setting
hour "H" min. min.···DELAY/ STAND & LOW

Example 1: High – 13 min. 45 sec.
10 min. pad : 1 tap
1 min. pad : 3 taps
10 sec. pad : 4 taps
1 sec. pad : 5 taps

Example 2: Low – 2 hours 25 min.
10 min. pad : 2 taps
10 sec. pad : 2 taps
1 sec. pad : 5 taps



*When DELAY/ STAND and (or) LOW are selected, the Time Select Pads change to hours and minutes. The ten (10) minute pad will program hours in the display window. The one (1) minute pad will be inoperable and display H, indicating hours. The seconds pads, ten (10) and one (1), will program minutes in the display window. No visible second countdown will be seen in the display window until 59 minutes remain. The timer will then display minutes and seconds.

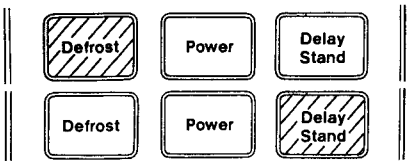
Power Select Pad

1tap : HIGH power 4taps : M. LOW power
2taps : M.HIGH power 5 taps : LOW power
3taps : MEDIUMpower 6 taps : WARM power

NOTE: The following selections for 2-or 3-stage program cooking are available in addition to any combination of powers.

- The same power in succession.
  HIGH→HIGH→HIGH
- Any combination of powers and Stand.
  HIGH→LOW→STAND
  HIGH→STAND→LOW
- Defrost to any combination of powers.
  DEFROST→HIGH→LOW
- Defrost to combination of any power and Stand.
  DEFROST→HIGH→STAND
  DEFROST→STAND→HIGH
- Delay to any combination of powers.
  DELAY→HIGH→LOW
- Delay to combination of any power and Stand.
  DELAY→HIGH→STAND

Defrost Select Pad



When Defrost is selected, the cycle will also program an automatic stand time equal to defrost time.

Delay/Stand Pad

To delay cooking or to program Stand Time after cooking is completed.

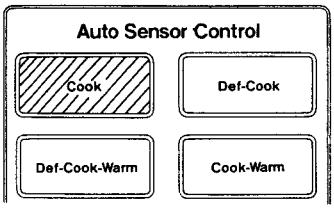
NOTE: It is not always advisable to use Delay Start when selecting any defrost function by time or Auto Sensor cooking. If left in the oven too long, some defrosting may take place before Defrost or Auto Sensor cooking begins, causing inacurate end results.

Auto Sensor Control Pads

1 tap : AUTO 1 4 taps : AUTO 4
2 taps : AUTO 2 5 taps : AUTO 5
3 taps : AUTO 3 6 taps : AUTO 6

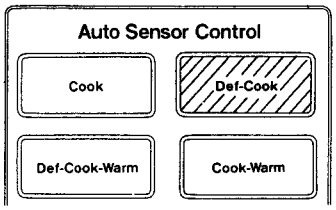
Cook

For cooking foods from their natural storage places. Meats, vegetables, casseroles, cake, etc.



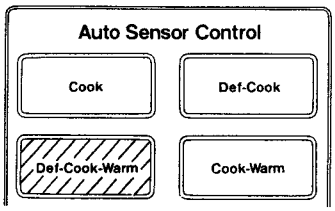
Defrost –Cook

For defrosting and cooking foods from the frozen state. Meats, convenience foods, casseroles. etc.



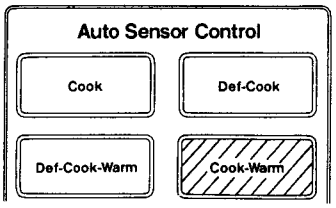
Defrost–Cook–Warm (Only for model NE-8020)

A complete cycle to defrost and cook foods from frozen state, then keep warm for 1 hour. (If foods are removed at end of cook, allow to stand according to recipe directions).

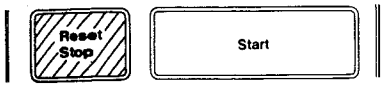


Cook– Warm (Only for model NE-8020)

For cooking foods from their natural storage place, then keep warm for 1 hour.
(If foods are removed at end of cook, allow to stand according to recipe directions.)

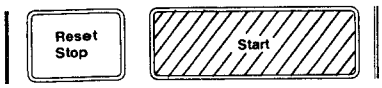


Reset/Stop Pad



Before cooking: One tap clears instructions.
During cooking: One tap temporarily stops the cooking progress. Another tap cancels all programs and TOD reappears in the Display Window.

Start Pad



One tap begins cooking. If door is opened or Reset/ Stop Pad is tapped once during cooking, Start Pad must always be tapped to begin cooking operation.

Beep Sound

When a correct Pad is tapped. a beep sound is heard. If a Pad is tapped and no beep sound is heard, the unit has not or cannot accept the instruction. Two beeps will sound between stages. At the end of any complete program, five beeps will be heard.

Opening Door

Opening the door during cooking will stop the cooking progress without cancelling program. Cooking resumes as soon as the door is closed and Start Pad is tapped. The oven light will turn on whenever the door is opened.

OPERATION PROCEDURE

SUMMARIZED DIRECTIONS

Time Cooking

MODEL / STAGE / STEP	NE-8020, NE-7920, NE-7920C		
	One-Stage Cooking	**Two-Stage Cooking**	**Three-Stage Cooking**
Step 1	Set Power	Set first Power	Set first power
Step 2	Set Time	Set first Time	Set first Time
Step 3	Tap START Pad	Set second Power	Set second Power
Step 4		Set second Time	Set second Time
Step 5		Tap START Pad	Set third Power
Step 6			Set third Time
Step 7			Tap START Pad
	Defrost Cycle	**Defrost-to-Cook Cycle**	**Defrost-to-Two Stage Cook Cycle**
Step 1	Tap DEFROST Pad	Tap DEFROST Pad	Tap DEFROST Pad
Step 2	Set Time	Set Time	Set Time
Step 3	Tap START Pad	Set second Power	Set second Power
Step 4		Set second Time	Set second Time
Step 5		Tap START Pad	Set third Power
Step 6			Set third Time
Step 7			Tap START Pad.

Auto Sensor Cooking

MODEL / STEP	NE-8020	
	NE-7920, NE-7920C	
Step 1	Set Auto Program (A1-A6, for COOK DEF-COOK)	Set Auto Program (A1-A6, for COOK-WARM,DEF-COOK-WARM)
Step 2	Tap START pad	Tap START pad

NE-8020 TIME COOKING PROCEDURE

One-Stage Cooking

Step 1. Set cooking power by tapping the POWER Pad to the appropriate power.
Example: Tap POWER Pad twice for M. High.
—Clock time disappears, zeros (00 00) appear in the Display Window. Indicator Light appears above the power selected. STAGE 1 Indicator Light turns on.

Step 2. Set cooking time by tapping the appropriate Time Pads.
Example: To set 15 minutes and 30 seconds, tap 10 min. pad once, 1 min. pad 5 times, 10 sec. pad 3 times.
—The cooking time appears in the Display Window.

Step 3. Touch START Pad.
—Microwave activity starts. STAGE1 Indicator Light blinks.
Turntable begins to rotate. Oven light turns on and cooking time begins to count down.
—When cooking time has elapsed, oven beeps and turns off automatically. Turntable stops. Power Indicator, STAGE1 Indicator light and oven light turn off. TOD reappears in the Display Window.

Defrost

Step 1. Touch DEFROST Pad.
—Clock time disappears, zeros (00 00) appears in the Display Window. Defrost Indicator Light and STAGE 1 Indicator Light turn on.

Step 2. Set defrost time by tapping Time Pads. (Refer to Step 2 under One-Phase Cooking.)
—The defrost time appears in the Display Window.

Step 3. Touch START Pad.
—Microwave activity starts. Oven light turns on, STAGE 1 Indicator Light blinks. Turntable begins to rotate. Defrost time begins to count down. Turntable keeps rotating.
—When the defrost time counts down to "0", the defrost time reappears in the Display Window. STAGE 1 Indicator Light stops blinking and remains on. Defrost Indicator Light also remains on.
Microwave activity stops and oven begins stand time. Turntable keeps rotating.
—When the stand time displayed counts down to "0", the oven beeps and turns off automatically.
Oven, Defrost and STAGE 1 Indicator Lights turn off. Turntable stops. The TOD reappears in the Display Window.

Three-Stage Programmed Cooking

Step 1. Set first cooking power by tapping POWER Pad to the appropriate power
(Refer to Step 1 under One—Stage Cooking.)
—Clock time disappears, zeros (00 00) appear in the Display Window. Power Indicator Light appears above the selected power. STAGE 1 Indicator Light turns on.

Step 2. Set first stage cooking time by tapping the appropriate Time Pads.
(Refer to Step 2 under One-Stage Cooking.)
—First stage cooking time appears in the Display Window.

Step 3. Set second stage cooking power by tapping POWER Pad to the appropriate power.
—First stage time disappears. Zeros (00 00) appear in the Display Window.
—Second stage cooking Power Indicator Light appears above the power selected. First stage cooking Power Indicator Light turns off. STAGE 2 Indicator Light turns on. STAGE 1 Indicator Light remains on.

Step 4. Set second stage cooking time by tapping the appropriate Time Pads.
—Second stage cooking time appears in the Display Window.

Step 5. Set third stage cooking power by tapping POWER Pad to the appropriate power.
—Second stage time disappears. Zeros (00 00) appear in the Display Window.
—Third stage cooking Power Indicator Light appears above the power selected. Second stage cooking Power Indicator Light turns off. STAGE 3 Indicator Light turns on and STAGE 1 and 2 Indicator Lights remain on .

Step. 6. Set third stage cooking time by tapping the appropriate Time Pads.
—Third stage cooking time appears in the Display Window.

Step. 7. Touch START Pad.
—Third stage cooking time disappears and first stage cooking time reappears in the Display Window and begins to count down. First stage Power Indicator Light turns on. Second and third stage Power Indicator Lights remain off. STAGE 1 Indicator Light starts to blink and STAGE 2 and 3 Indicator Lights remain on. Oven light turns on. Turntable rotates. Microwave activity begins.
—When the first stage cooking time has elapsed, a beep sounds twice. Second stage cooking time reappears in the Display Window and begins to count down. First stage Power Indicator Light and STAGE 1 Indicator Light turn off. STAGE 2 Indicator Light starts to blink. Second stage Power Indicator Light comes on.
—When the second stage cooking time has elapsed, a beep sounds twice. Third stage cooking time reappears in the Display Window and begins to count down. Second stage Power Indicator Light and STAGE 2 Indicator Light turn off. STAGE 3 Indicator Light starts to blink. Third stage Power Indicator Light comes on.
—When the third stage cooking time has elapsed, five beeps are heard and oven turns off automatically. Third stage Power Indicator Light and STAGE 3 Indicator Light turn off. Oven light turns off and turntable stops. TOD reappears in the Display Window.

NE-8020 AUTO SENSOR COOKING

For proper cooking results on Auto Sensor program, be sure to cover foods tightly with plastic film, or place in a glass casserole with lid as directed by recipe.

Step 1. Select the appropriate Auto Sensor Control Pad—COOK, DEF-COOK, DEF-COOK-WARM or COOK-WARM. Tap the selected Auto Sensor Control Pad until desired program appears in the Display Window.
1tap. . . . A1 3taps . . . A3 5taps . . . A5
2taps . . . A2 4taps . . . A4 6taps . . . A6
—Clock time disappears. The selected Auto Sensor Program appears in the Display Window. Auto Status Indicator Light(s) turns on.

Step 2. Touch START Pad.
—Oven light turns on. Auto Status Indicator Light of first operating status starts to blink and other Auto Status Indicator Lights remain on. Microwave activity starts. Turntable rotates and oven light turns on.
—Oven will operate automatically according to the selected Auto Cook function.

Cook
—When Auto Sensor program disappears, a beep sounds twice and a time will appear in the Display Window indicating the ramainder of the cooking time and will start to count down.
COOK Status Indicator Light continues to blink.
—When Auto Sensor Cooking is over, COOK Status Indicator Light turns off, oven beep 5 times and oven shuts off automatically. TOD reappears in the Display Window.

Def-Cook
—When Auto Sensor program disappears a beep sounds twice and a time will appear in the Display Window indicating the remainder of the cooking time and will start to count down. DEF Status Indicator Light turns off and COOK Status Indicator Light starts to blink.
—When Auto Sensor DEF-COOK Cooking is over, COOK Status Indicator Light turns off, 5 beeps are heard, and oven shuts off automatically. TOD reappears in the Display Window.

Cook-Warm
—When Auto Sensor program disappears, a beep sounds twice and a time will appear in the Display Window indicating the remainder of COOK status time and will start to count down. COOK Status Indicator Light continues to blink.
—When COOK status time is over, a beep sounds twice and 60 min. (6000) will appear in the Display Window indicating the WARM time and starts to count down. COOK Status Indicator Light turns off, and WARM Status Indicator Light begins to blink.
—When Auto Sensor COOK-WARM is over, WARM Status Indicator Light turns off, a beep sounds 5 times and oven shuts off automatically. TOD reappears in the Display Window.

Def-Cook-Warm
—When Auto Sensor program disappears, a beep sounds twice and a time will appear in the Display Window indicating the remainder of cooking time and begin to count down.
DEF Status Indicator Light turns off and COOK Status Indicator Light starts to blink.
—When COOK Status time is over, a beep sounds twice and 60 min, (6000) will appear in the Display Window indicating the WARM time and starts to count down.
COOK Status Indicator Light turns off, and WARM Status Indicator Light begins to blink.
—When Auto DEF-COOK-WARM is over, WARM Status Indicator Light turns off, and a beep sounds 5 times and oven shuts off automatically. TOD reappears in the Display Window.

NE-7920, NE-7920C TIME COOKING PROCEDURE

One-Stage Cooking

Step 1. Set cooking power by tapping the POWER Pad to the appropriate power.
Example: Tap POWER Pad twice for M. High.
—Clock time disappears, zeros (00 00) appear in the Display Window.
Power Indicator Light appears above the power selected.

Step 2. Set cooking time by tapping the appropriate Time Pads.
Example: To set 15 minutes and 30 seconds, tap 10 min. pad once, 1 min. pad 5 times, 10 sec. pad 3 times.
—The cooking time appears in the Display Window.

Step 3. Touch START Pad.
—Microwave activity starts. Power Indicator Light blinks.
Turntable begins to rotate. Oven light turns on and cooking time begins to count down.
—When cooking time has elapsed, oven beeps and turns off automatically.
Turntable stops. Power Indicator Light and oven light turn off.
TOD reappears in the Display Window.

Defrost

Step 1. Touch DEFROST Pad.
—Clock time disappears, zeros (00 00) appear in the Display Window. Defrost Indicator Light turns on.

Step 2. Set defrost time by tapping Time Pads. (Refer to Step 2 under One-Stage Cooking)
—The defrost time appears in the Display Window.

Step 3. Touch START Pad.
—Microwave activity starts. Oven light turns on. Defrost Indicator Light blinks. Turntable begins to rotate. Defrost time begins to count down.
—When the defrost time counts down to "0", the defrost time reappears in the Display Window. Defrost Indicator Light stops blinking and remains on. A beep sounds twice. Microwave activity stops and oven begins stand time. Turntable keeps rotating.

—When the stand time displayed counts down to "0", the oven beeps and turns off automatically. Oven light, Defrost Indicator Light turn off. Turntable stops. The TOD reappears in the Display Window.

Three-Stage Programmed Cooking

Step 1. Set first cooking power by tapping POWER Pad to the appropriate power.
(Refer to Step 1 under One-Stage Cooking.)
—Clock time disappears, zeros (00 00) appear in the Display Window. Power Indicator Light appears above the selected power.

Step 2. Set first stage cooking time by tapping the appropriate Time Pads.
(Refer to Step 2 under One-Stage Cooking.)
—First stage cooking time appears in the Display Window.

Step 3. Set second stage cooking power by tapping POWER Pad to the appropriate power.
—First stage time disappears. Zeros (00 00) appear in the Display Window.
—Second stage cooking Power Indicator Light appears above the power selected. First stage cooking Power Indicator Light turns off.

Step 4. Set second stage cooking time by tapping the appropriate Time Pads.
—Second stage cooking time appears in the Display Window.

Step 5. Set third stage cooking power by tapping POWER Pad to the appropriate power.
—Second stage time disappears. Zeros (00 00) appear in the Display Window.
—Third stage cooking Power Indicator Light appears above the power selected. Second stage cooking Power Indicator Light turns off.

Step 6. Set third stage cooking time by tapping the appropriate Time Pads.
—Third stage cooking time appears in the Display Window.

Step 7. Touch START Pad.
—Third stage cooking time disappears and first stage cooking time reappears in the Display Window and begins to count down. First stage Power Indicator Light turns on and starts to blink. Second and third stage Power Indicator Lights turn on. Oven light turns on. Turntable rotates.
Microwave activity begins.
—When the first stage cooking time has elapsed, a beep sounds twice. Second stage cooking time reappears in the Dislay Window and begins to count down. First stage Power Indicator Light turns off. Second stage Power Indicator Light starts to blink. Third stage Power Indicator Light remains on.
—When second stage cooking time has elapsed, a beep sounds twice. Third stage cooking time reappears in the Display Window and begins to count down. Second stage Power Indicator Light turns off.
Third stage Power Indicator Light starts to blink.
—When the third stage cooking time has elapsed, five beeps are heard and oven turns off automatically. Third stage Power Indicator Light turns off. Oven light turns off and turntable stops. TOD reappears in the Display Window.

NE-7920, NE-7920C AUTO SENSOR COOKING

For proper cooking results on Auto Sensor program, be sure to cover foods tightly with plastic film, or place in a glass casserole with lid as directed by recipe.

Step 1. Select the appropriate Auto Sensor Control Pad — COOK or DEF-COOK.
Tap the selected Auto Sensor Control Pad until desired program appears in the Display Window.
1 tap. . . . A1 3 taps . . . A3 5 taps . . . A5
2 taps . . . A2 4 taps . . . A4 6 taps . . . A6
—Clock time disappears. The selected Auto Sensor Program appears in the Display Window. Auto Indicator Light turns on.

Step 2. Touch START Pad.
—Oven light turns on. Auto Indicator Light starts to blink. Microwave activity starts. Turntable rotates.
—Oven will operate automatically according to the selected Auto Cook function.

Cook
—When Auto Sensor program disappears, a beep sounds twice and a time will appear in the Display Window indicating the remainder of the cooking time and will start to count down. Auto COOK Indicator Light continues to blink.
—When Auto Sensor Cooking is over, Auto COOK Indicator Light turns off, oven beep 5 times and oven shuts off automatically. TOD reappears in the Display Window.

Def-Cook
—When Auto Sensor program disappears, a beep sounds twice and a time will appear in the Display Window indicating the remainder of the cooking time and will start to count down. Auto DEF-COOK Indicator Light continues to blink.
—When Auto Sensor DEF-COOK Cooking is over, Auto DEF-COOK Indicator Light turns off . 5 beeps are heard, and oven shuts off automatically. TOD reappears in the Display Window.

NOTE: **When the oven calculates the balance of cooking time to be over 60 minutes, the time will appear as hours and minutes.**
Example: If time should be 94 minutes, the Display Window will show 1H34. The seconds will not visibly count down in the Display Window until the 35 minutes has elapsed and only 59 minutes remain. At that time the unit will again show minutes and seconds. Seconds will visibly count down.

IMPORTANT

1. Auto Sensor cooking is successful only with the foods and recipes found in the Auto Sensor Cooking Guide. Because of the vast differences in food composition, items not mentioned in this Cooking Guide should be prepared in your microwave oven using Power Select and Time features. Please consult Variable Power Microwave Cookbook for procedures.
2. When cooking with Auto Sensor, do not interrupt the oven for more than one minute for better cooking result as long as Auto Sensor (A1-A6) is indicated in the Display Window.
3. All foods for Auto Sensor Cooking on COOK or COOK-WARM are taken from their normal storage place.

4. All foods for Auto Sensor Cooking on DEFROST-COOK or DEFROST-COOK-WARM should be solidly frozen .
5. Before using Auto Sensor feature, make sure glass tray in the oven is dry to assure best Auto cooking results.
6. Room temperature or heat surrounding the oven should not be above 95 degrees F when using the Auto Sensor Cooking cycle. Inaccurate cooking may result.
7. Foods less than 3 or 4 ounces should be cooked by power and time, not by the Auto Sensor Cooking program.

AUTOMATIC CHECKING MECHANISM

1. If "E" indication appears in the Display Window: You might have given wrong instruction. "E", indicating ERROR, appears under following conditions.
   *When Auto. Sensor Cooking is selected after Time and Power cooking.
   *When Defrost power and Time is selected together with Auto Sensor cooking.
   *When more than two Auto Sensor Programs are selected at a time by using different Auto Cook functions. (When same Auto Cook function is selected two or three times, A1-A6 only appear in the Display Window.)
   *When 4th stage cooking is selected.
   *When clock is set later than 12:59 or at impossible time like 00:73 or 83:25. Touch RESET Pad to clear "E" from Display Window and enter correct instructions.
2. If Auto Sensor Control should not work properly, oven is designed to shut off automatically 60 minutes after operation begins and to show "FFFF" in the Display Window. Touch RESET Pad to clean "F" from the Display Window and check if the quantity of food should be proper for Auto Sensor cooking.
3. When the oven is not being used for cooking the Display Window will show TOD. If the oven is affected by temporary power failure or the plug is removed and reinserted, the Display Window will show zeros (00:00) with blinking colon automatically. To reset the correct TOD, simply follow the clock set instructions.

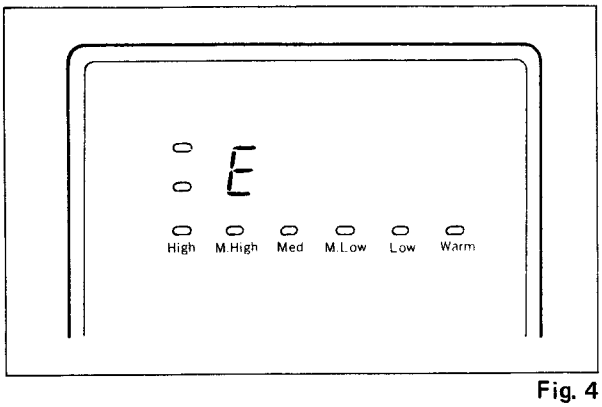


Fig. 4

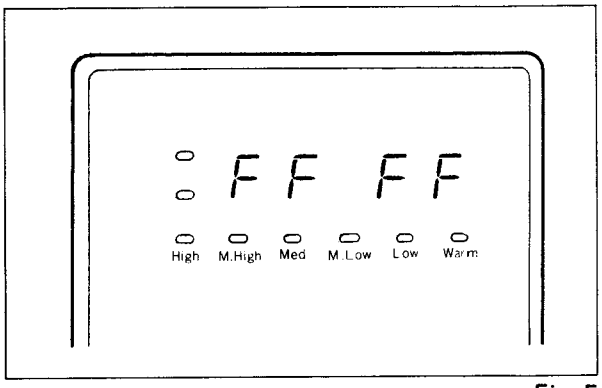
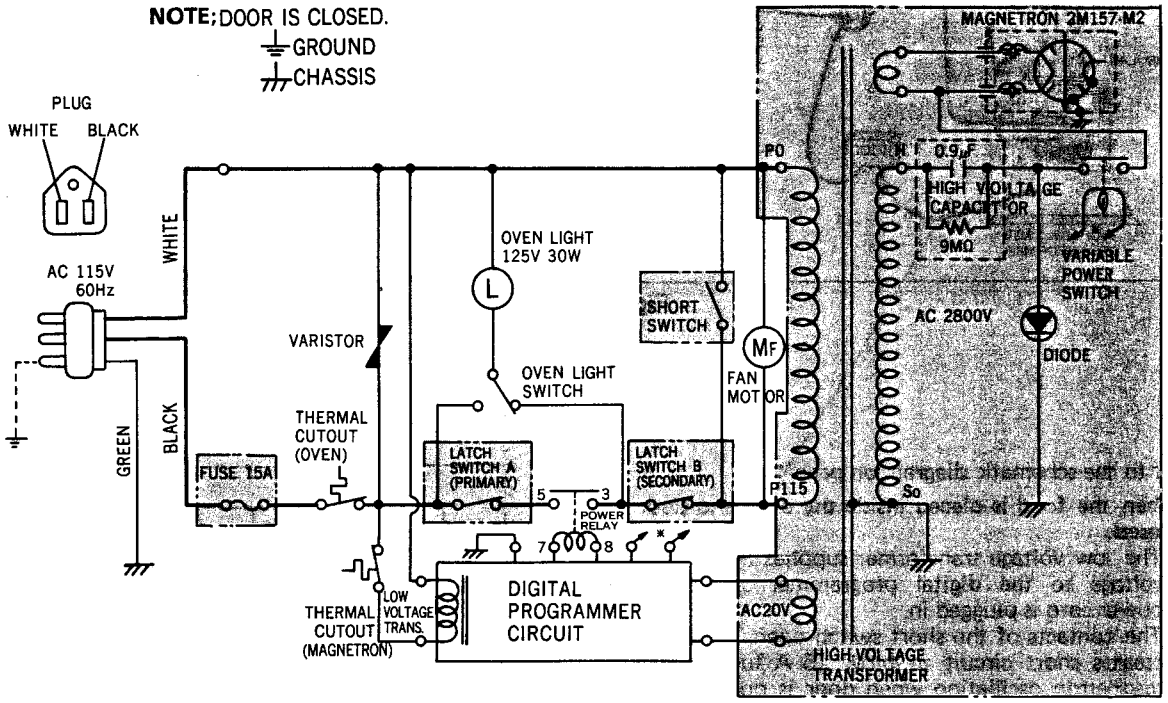


Fig. 5

CAUTION WHEN USING

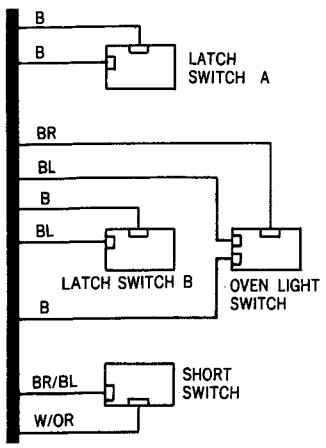
1. Do not use metalware
   In rare cases where you must use metal materials such as foil or skewers, etc., take care not to have the edge of the metal material touch the inner glass screen, or the oven walls (coated steel), because the glass plate may be broken or the coated part may be burned by sparking.
2. Always keep the glass cooking tray clean
   Do not cook foods with a high fat or sugar content directly on the glass tray.
3. Do not dry clothes in the microwave oven.
4. Avoid using wooden containers for more than a few seconds.
5. Do not operate the oven with a kitchen towel or a napkin left between the door and the front wall of the oven.
6. Do not press the cook button when the oven is empty.
7. Keep the inside of the oven clean.
8. Avoid cooking a small-volume of food for a long period of time.
9. If any visible steam or moisture is found on or around the door just wipe it off. There is no need for concern and this never causes any microwave leakage.
10. Cautions when operating the control panel.
    A. Do not touch control pads with water or oil on your finger.
       When the control panel is dirty, wipe with a damp cloth first and then finish with a soft dry cloth. Do not use harsh detergents or abrasives.
    B. Do not try to touch the pads while wearing gloves or while holding any insulating materials.
    C. For most accurate programming of the unit, tap the center of each pad firmly.
    D. Do not hit or strike the control panel since this is made of glass and may be broken.
11. When power select is set at a setting other than High, the intensity of the oven light will vary. This is normal and indicates that the oven is operating normally.
12. Do not put your watch directly on the turntable. Mechanics of the turntable utilize magnetic capsules and might damage your watch.

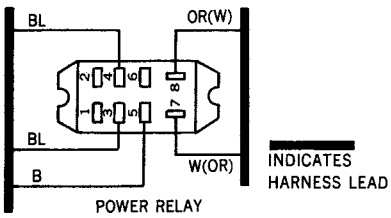
SCHEMATIC DIAGRAM



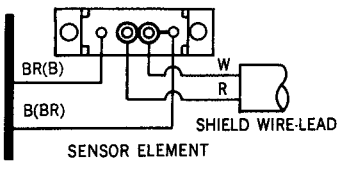
IMPORTANT SAFETY NOTE;THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM MICROWAVE RADIATION. FIRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING IT IS ESSENTIAL, THAT ONLY MANUFACTURERS SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC DIAGRAM.

WIRING DIAGRAM





INDICATES HARNESS LEAD



SYMBOL	COLOR
B	BLACK
BR	BROWN
BL	BLUE
W	WHITE
OR	ORANGE
R	RED
BR/BL	BROWN-BLUE
W/OR	WHITE-ORANGE

NOTE; ( )ONLY APPLY FOR NE-8020.

Fig. 6

NOTE: This circuit does not contain 10Ω resistor. Please refer to the component test procedure on page 28 of the service manual.

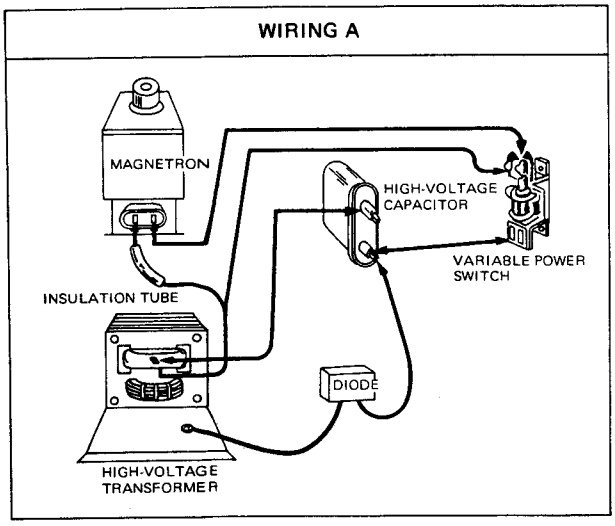


Fig. 7

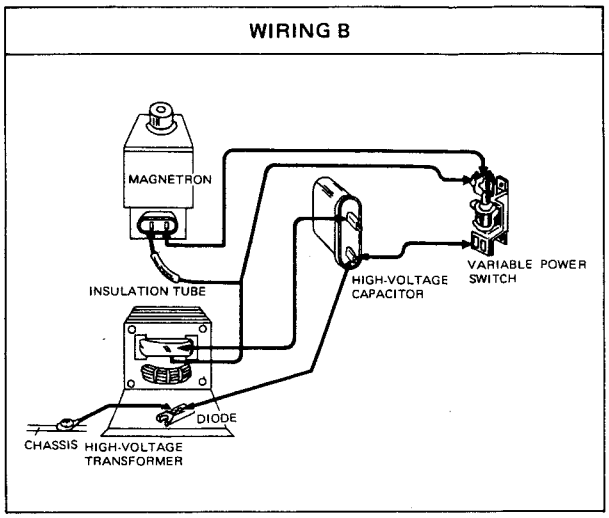


Fig. 8

CIRCUIT DESCRIPTION

Refer to the schematic diagram on page 11.

1. When the food is placed inside the oven and door is closed.

(A) The low voltage transformer supplies the necessary voltage to the digital programmer circuit when power cord is plugged in.

(B) The contacts of the short switch open. This switch creates short circuit to blow 15 A fuse and stop magnetron oscillation when door is opened during operation under abnormal condition (i.e. both the contacts of latch switch A and B do not open the circuit to stop oscillation.)

(C) The door keyes are caught by the door hooks, the contacts of latch switch A and B close the primary circuit.

(D) The oven light. switch is activated to turn off the oven light. The oven light turns on while the door is opened or the magnetron oscillates.

2. When cooking power and cooking time are set. (ONE-STAGE COOKING)

(A) Power indicator light above the power selected turns on and stage 1 indicator light for model NE-8020 turns on.

(B) The time you set appears in the display window.

(C) The digital programmer circuit memorizes the function you set.

3. When the start pad is touched.

(A) 115 V A.C. is applied to the high voltage transformer through the power relay contacts which are closed by the digital programmer circuit.

(B) Fan motor starts rotating and cools the magnetron by blowing the air coming from the intake on the back panel over the magnetron fins. Also the fan motor drives the turntable by means of gears, belts and pulleys for uniform cooking. (See fig.9)

(C) The oven light turns on.

(D) Power indicator light (NE-7920 and NE-7920C) or stage 1 indicator light (NE-8020) starts blinking to indicate magnetron oscillation.
Cooking time starts counting down.

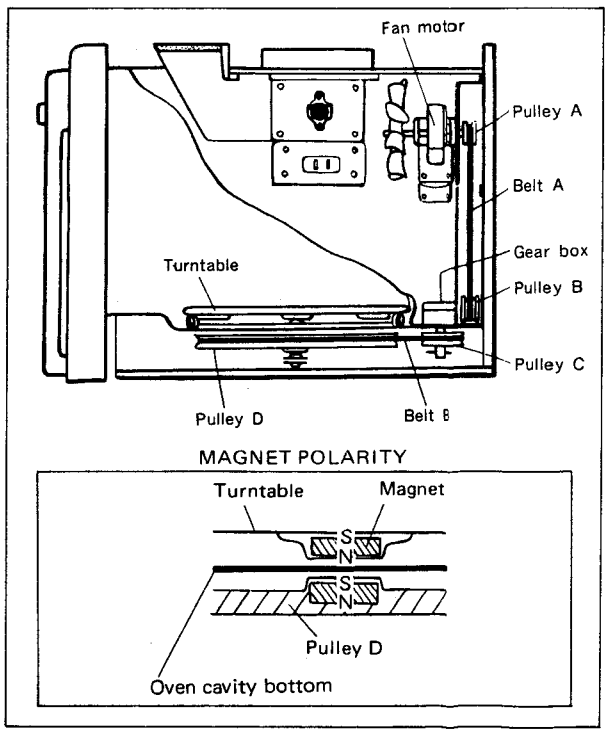


Fig. 9

(E) 20V A.C. is supplied to the digital programmer circuit from the high voltage transformer.

(F) 3.2 volts AC is generated from the filament winding of the high voltage transformer. This 3.2 volts is applied to the magnetron to heat the magnetron filament through two noise preventing choke coils.

(G) A high voltage of 2,800 volts AC is generated in the secondary of the high voltage transformer and this secondary voltage is increased by the action of the diode and the charging of the high voltage capacitor. This resultant DC voltage is then applied to the anode of the magnetron. As shown in fig.10, the first half cycle of the high voltage produced in the high voltage transformer secondry charges the high

voltage capacitor. Current flow is in the direction of the dotted-line ---➤ During the second half cycle, the voltage produced by the transformer secondary, and the charge of the high voltage capacitor are combined and applied to the magnetron as shown by the solid-line ——➤ so that oscillation begins. the disturbance wave generated by the magnetron is prevented by the choke coils of 1.6μH, filter capacitors of 500pF and the magnetron's shielded case so that TV and radio programs are not impaired by noise.

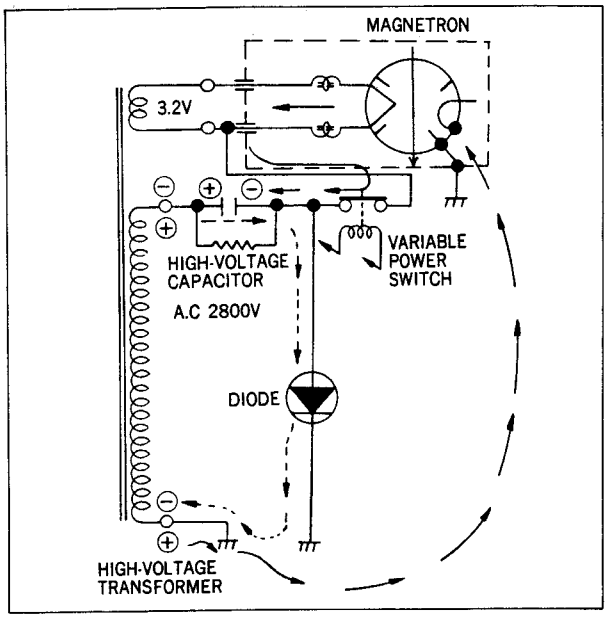


Fig. 10

(H) The coil of variable power switch is energized intermittently by the digital programmer circuit, when the oven is set at any power selection except for High power position. The digital programmer circuit controls the ON-OFF time of the variable power switch contacts in order to vary the output power of the microwave oven from "Warm" to "High" power. One complete ON and OFF cycle of the variable power switch is 22 seconds.
The relation between indications on the control panel and the output of the microwave oven is as shown in fig.11.

INDICATION	OUTPUT POWER AGAINST HIGH POWER	ON, OFF TIME ON VARIABLE POWER SWITCH
High	22/22 (100%)	22(S) ON, 22(S) ON
M.High	20/22 (91%)	20(S) ON, OFF, ON, OFF
Med	15/22 (68%)	15(S) ON, OFF, ON, OFF
M.Low	11/22 (50%)	11(S) ON, OFF, ON, OFF
Low	6/22 (27%)	6(S) ON, OFF, ON, OFF
Warm	2/22 (10%)	2(S) ON, OFF, ON, OFF
Defrost	7/22 (32%)	7(S) ON, OFF, ON, OFF
Warm in Auto Cooking	1/22 (4.5%)	ON, 1(S) OFF, ON, OFF

Fig. 11

4. When the door is opened during cooking.
(A) Latch switch A (primary) and latch switch B (secondary) open to cut off the primary voltage to the high voltage transformer to stop microwave oscillation.
(B) Power indicator light (NE-7920 and NE-7920C) or stage indicator light (NE-8020) stops blinking but stays it.
(C) Power relay stops functioning.
(D) Oven light remains on.
(E) Fan motor and turntable stop rotating.
(F) As soon as the door handle button is pressed, the short switch contacts close and create the short circuit.
(G) If the contacts of latch switch A and the contacts of latch switch B both malfunction, the 15 A fuse blows open due to the large current surge caused by the short switch activation, and this in turn stops magnetron oscillation.

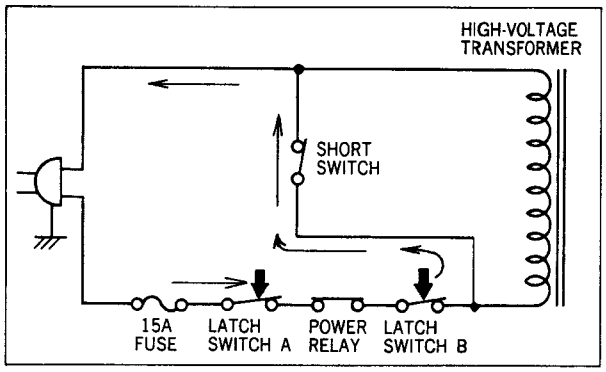


Fig. 12

5. When Reset/Stop pad is tapped once during cooking.
(A) The digital programmer circuit cuts the voltage supplied to the power relay coil causing the magnetron to stop oscillation.
(B) Power indicator light (NE-7920 and NE-7920C) or Stage indicator light (NE-8020) stops blinking and stays on.
(C) Oven light turns off.
(D) Fan motor and turntable stop rotating.

NOTE: At this moment, the oven is in "hold" condition and when the start pad is touched again, the oven starts to operate as originally programmed.

6. When Reset/Stop pad is tapped twice during cooking.
(A) The digital programmer circuit cancels all instructions given.
(B) Power relay stops functioning to stop magnetron oscillation.
(C) Any indications displayed during cooking turn off and display shows TOD.
(D) Oven light turns off.
(E) Fan motor and turntable stop rotating.

PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

(A) Do not operate or allow the oven to be operate with the door open.
(B) Make the following safety checks on all ovens to be serviced before activating the magnetron or other microwave source, and make repairs as necessary:
  (1) Interlock operation
  (2) Proper door closing
  (3) Seal and sealing surfaces (arcing, wear, and other damage)
  (4) Damage to or loosening of hinges and latches
  (5) Evidence of dropping or abuse
(C) Before turning on microwave power for any service test or inspection within the microwave generating compartments, check the magnetron, wave guide or transmission line, and cavity for proper alignment, integrity and connections.
(D) Any defective or misadjusted components in the interlock, monitor, door seal, and microwave generation and transmission systems shall be repaired, replaced, or adjusted by procedures described in this manual before the oven is released to the owner.
(E) A microwave leakage check to verify compliance with the Goverment performance standard should be performed on each oven prior to release to the owner.

CAUTIONS TO BE OBSERVED WHEN TROUBLESHOOTING

Unlike many other appliances, the microwave oven is high-voltage, high-current equipment. Though it is free from danger in ordinary use, extreme care shoud be taken during repair.

CAUTION

SERVICEMEN SHOULD REMOVE THEIR WATCHES WHENEVER WORKING CLOSE TO OR REPLACING THE MAGNETRON.

1. Check the grounding

Do not operate on a 2-wire extension cord. The microwave oven is designed to be used when grounded. It is imperative, therefore, to make sure it is grounded properly before beginning repair work.

2. Warning about the electric charge in the high voltage capacitor

For about 30 seconds after the oven stops, an electric charge remains in the high voltage capacitor. When replacing or checking parts, short between oven chassis and the lower terminal of variable power switch by an insulated screw driver to discharge.
See figure 13.

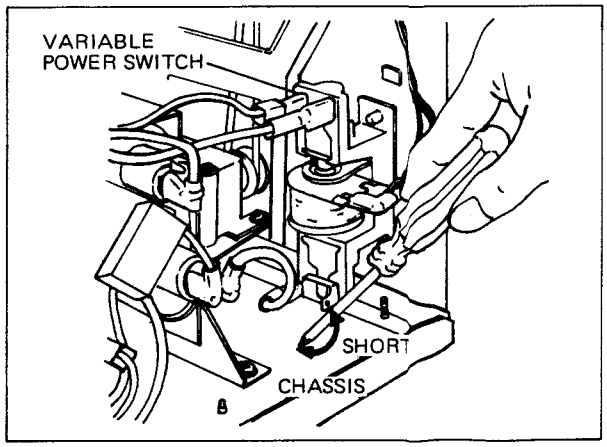


Fig. 13

WARNING

THERE IS HIGH-VOLTAGE PRESENT, WITH HIGH-CURRENT CAPABILITIES IN THE CIRCUITS OF THE HIGH VOLTAGE TRANSFORMER SECONDARY AND FILAMENT TRANSFORMER SECONDARY. IT IS EXTREMELY DANGEROUS TO WORK ON OR NEAR THESE CIRCUITS WITH THE OVEN ENERGIZED.

WARNING

NEVER TOUCH ANY CIRCUIT WIRING WITH YOUR HAND OR INSULATED TOOL DURING OPERATION.

3. **When parts must be replaced, remove the power plug from the outlet.**

4. **When the 15 Amp fuse is blown due to the operation of short switch:**

(A) Replace the latch switch A (primary), latch switch B (secondary) and short switch. This is mandatory. Refer to pages 19 & 20 for the necessary adjustments for these switches.
(B) When replacing the fuse, confirm that it has the appropriate rating for this model.

5. **Avoid inserting nails, wire, etc. through any holes in the unit during operation.**

Never insert a wire, nail or any other metal object through the lamp holes on the cavity or any other holes or gaps, because such objects may work as an antenna and cause microwave leakage.

6. **Confirm after repair**

(A) After repair or replacement of parts, make sure that the screws of the oven, etc. are neither loose nor missing. Microwaves might leak if screws are not properly tightened.
(B) Make sure that all electrical connections are tight before inserting the plug into the wall outlet.
(C) Check for radiation leakage, (Refer to procedure for measuring radiation leakage on pages 21 & 22)

DISASSEMBLY AND PARTS REPLACEMENT PROCEDURE

1. **Removal of outer panel**

Remove the four screws from the front section and seven screws from the rear section. The outer panel must now be pushed backward to be lifted off.

2. **Replacement of the magnetron**

CAUTION

SERVICEMEN SHOULD REMOVE THEIR WATCHES WHENEVER WORKING CLOSE TO OR REPAIRING THE MAGNETRON.

(A) Discharge the high voltage capacitor (see page 14)
(B) Remove the air guide A by removing 2 screws holding it to the oven cavity.
(C) Remove two high voltage leads from filament terminals.
(D) Remove two screws holding thermal cutout to magnetron.
(E) Remove four nuts holding the magnetron.

NOTE 1: Make sure that the embossed ring is rigidly attached on the magnetron anode. (see fig. 15)

NOTE 2: To prevent microwave leakage, tighten the mounting nuts properly making sure there is no gap between the waveguide and the magnetron.

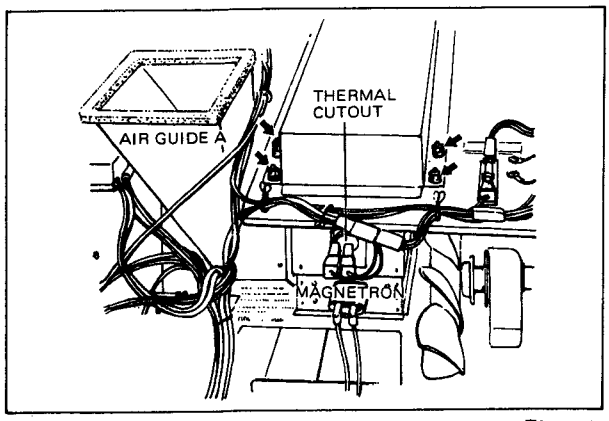


Fig. 14

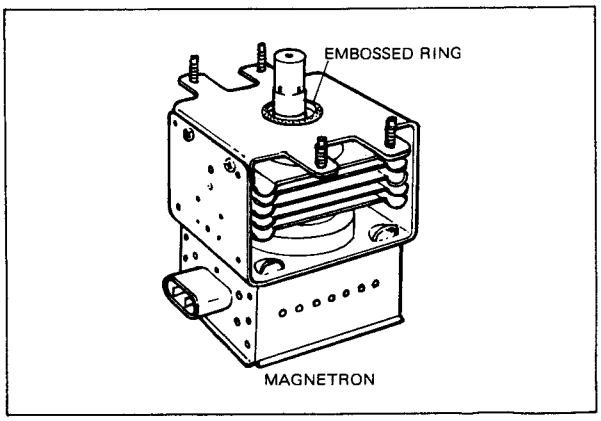


Fig. 15

3. **Replacement of the fan motor assembly.**

(A) Remove the variable power switch and the high voltage capacitor.
(B) Remove the rubber belt from pulley C.
(C) Remove 5 screws holding fan motor bracket. (See figure 16 & 17)
(D) Pull the fan motor with the bracket and gear box toward you.
(E) Remove the belt A from fan motor's pulley.
(F) Remove three screws holding the fan motor assembly. (See figure 18)
(G) Remove the wire pin to remove pulley.

NOTE: When installing pulley A to the shaft of the fan motor, pulley A should be positioned over the hole on the shaft end and then insert the wire pin.

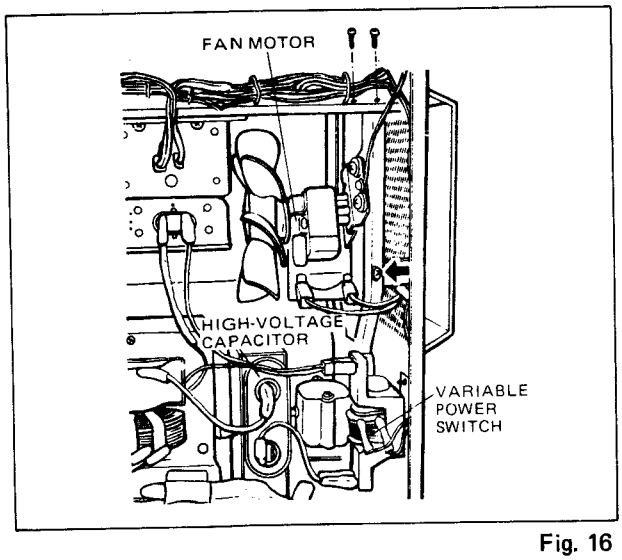


Fig. 16

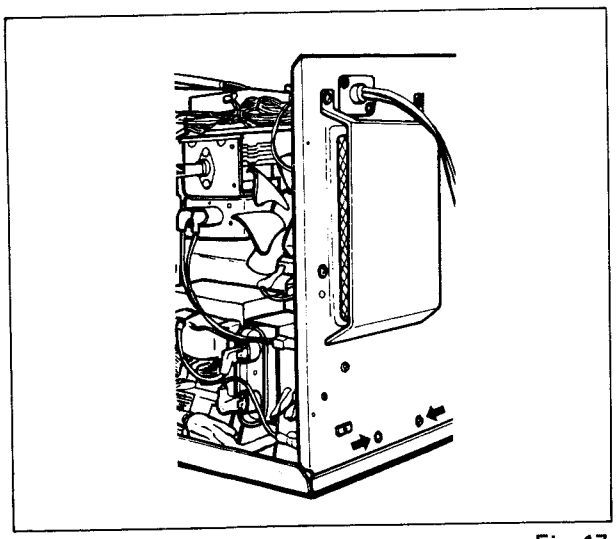


Fig. 17

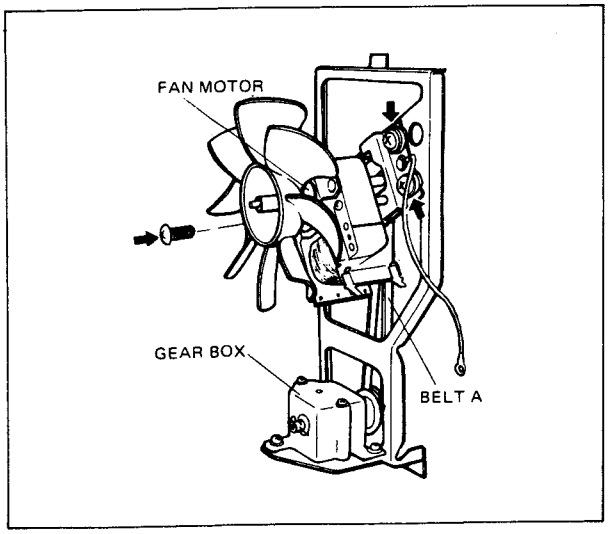


Fig. 18

4. Replacement of the digital programmer circuit (D.P.C.) for NE-8020

NOTE: Be sure to ground any static electric charge in your body before handling the digital programmer circuit.

(A) Disconnect 10-pin connector and plastic connector of low voltage transformer.

(B) Unsolder two lead wires connected to the two inside terminals on the humidity sensor. (Fig. 20)

NOTE:

A. When replacing the digital programmer circuit, you must unsolder the two wires from the humidity sensor.
Never unsolder the wires from the digital programmer circuit board itself.

B. When reconnecting the two wires to the humidity sensor, follow the wiring of the sensor on page 11 of this service manual.

(C) Remove three screws holding the escutcheon base to the oven chassis (See fig. 19).

(D) Remove 8 screws holding the digital programmer circuit to the escutcheon base.

NOTE: Before installing a new DPC into the oven escutcheon base, you must remove the two screws holding the low voltage transformer to the PCB during shipping. In addition you must reinstall these same two screws into the defective PCB to hold the low voltage transformer. This will prevent any damage to the PCB during shipping.

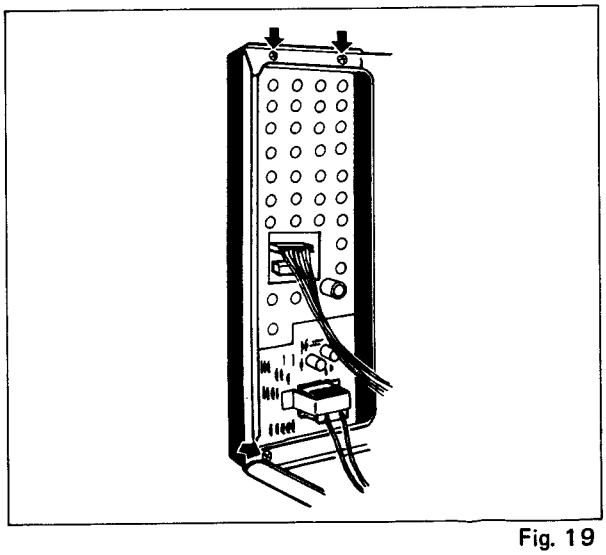


Fig. 19

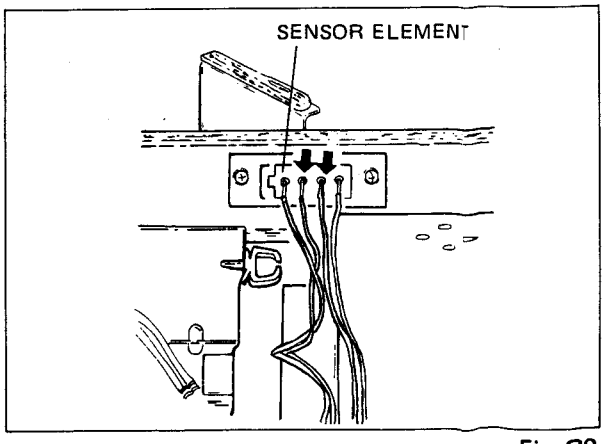


Fig. 20

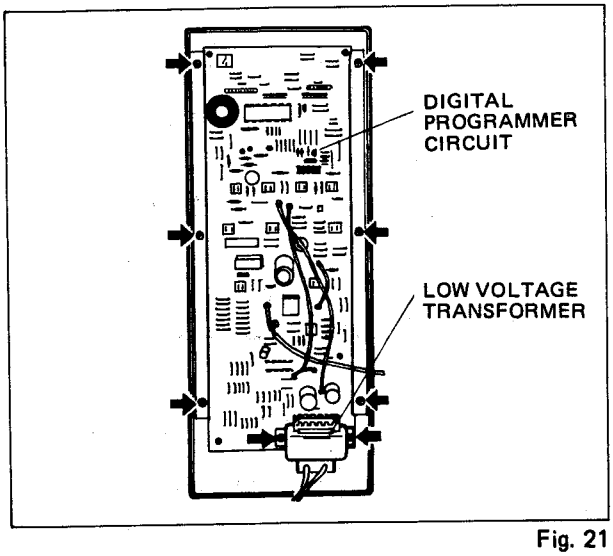


Fig. 21

5. Replacement of the digital programmer circuit for NE-7920 and NE-7920C

NOTE: Be sure to ground any static electric charge in your body before handling the digital programmer circuit.

(A) Disconnect 10-pin connector and the plastic connector of low voltage transformer.

(B) Unsolder two lead wires connected to the two inside terminals on the humidity sensor.(Fig. 23)

NOTE:

A. When replacing the digital programmer circuit, you must unsolder the two wires from the humidity sensor.
Never unsolder the wires from the digital programmer circuit board itself.

B. When reconnecting the two wires to the humidity sensor, follow the wiring of the sensor on page 11 of this service manual.

(C) Remove three screws holding the escutcheon base to the oven chassis (See fig.22).

(D) Remove 7-pin connector from the membrane switch assembly.

(E) Remove 6 screws holding the digital programmer circuit to the escutcheon base. (See fig.24).

NOTE: Before installing a new DPC into the oven escutcheon base, you must remove the two screws holding the low voltage transformer to the PCB during shipping. In addition you must reinstall these same two screws into the defective PCB to hold the low voltage transformer. This will prevent any damage to the PCB during shipping.

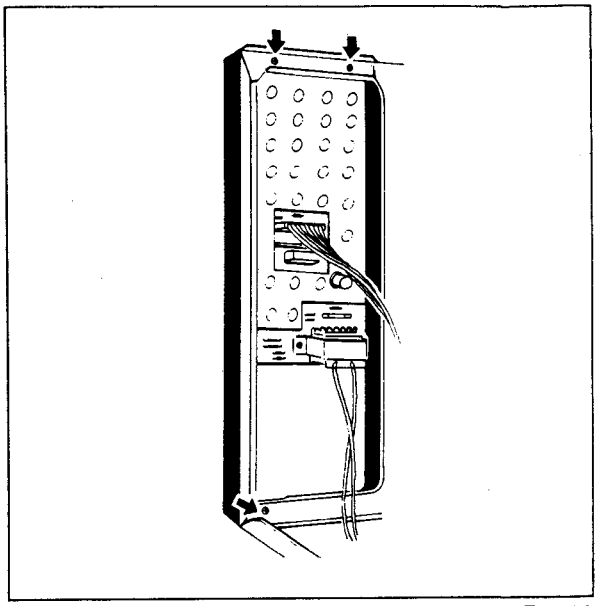


Fig. 22

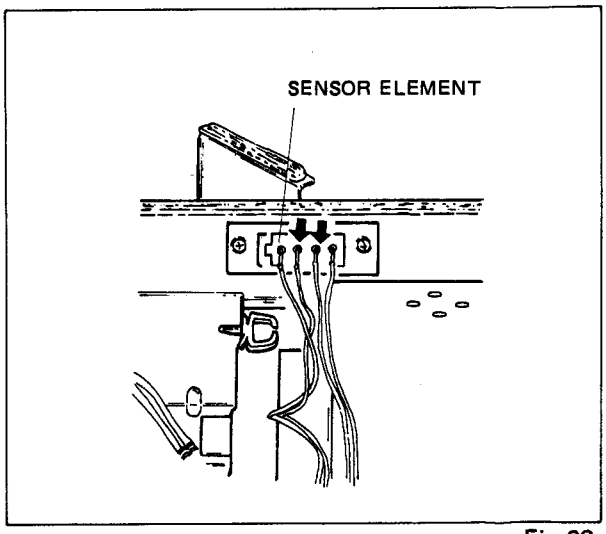


Fig. 23

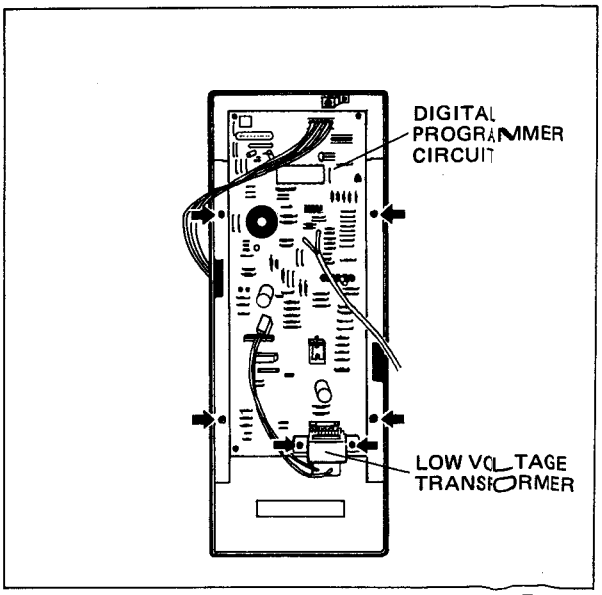


Fig. 24

6. **High voltage circuit wiring**
Two types of high voltage diodes will be used in the high voltage wiring. These wirings are shown in figures below.

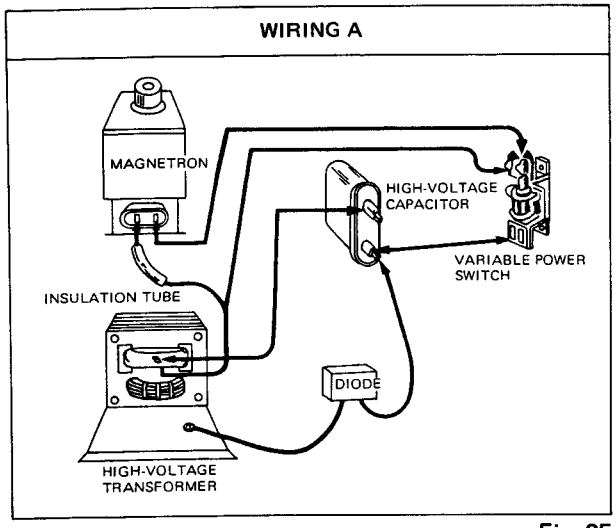


Fig. 25

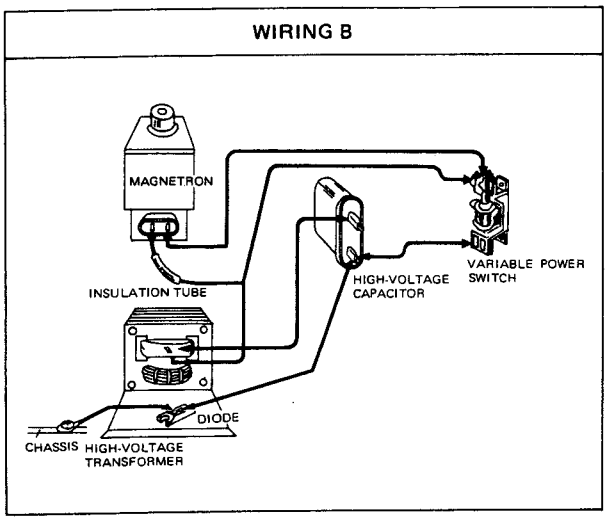


Fig. 26

When ordering a diode (ANE6202-C90), you will receive either an A type or B type diode for your order. If you receive a different type from the defective one, change the high voltage wiring as shown in above figures.

7. **Replacement of the door assembly.**

(A) Remove the 4 bolts holding the upper hinge and lower hinge to the oven assembly.

(B) Open the door and while pulling the door toward you, work the upper hinge out through the hole in the oven assembly. The door will be simply lifted off the bottom hinge pin at the same time.

(C) When mounting the door assembly to the oven assembly, be sure to adjust the door assembly parallel to the sash by moving the upper hinge and lower hinge according to the directions in fig.27. Also adjust so that the door has no play between the inner door surface and oven frame assembly. If the door assembly is not mounted properly, microwaves may leak from the clearance between the door and the oven.

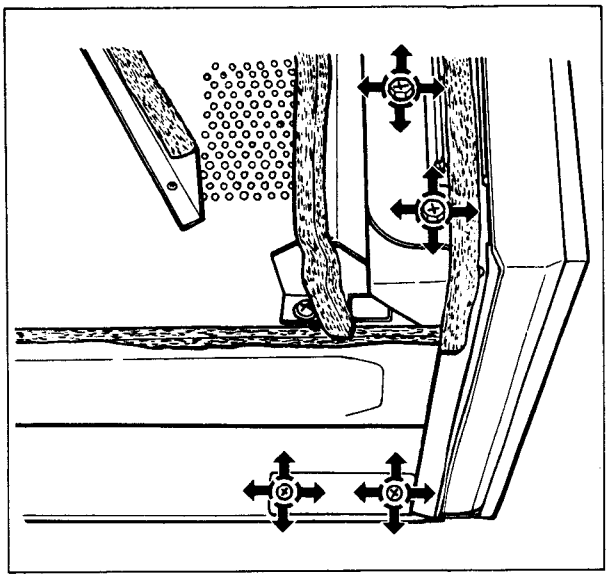


Fig. 27

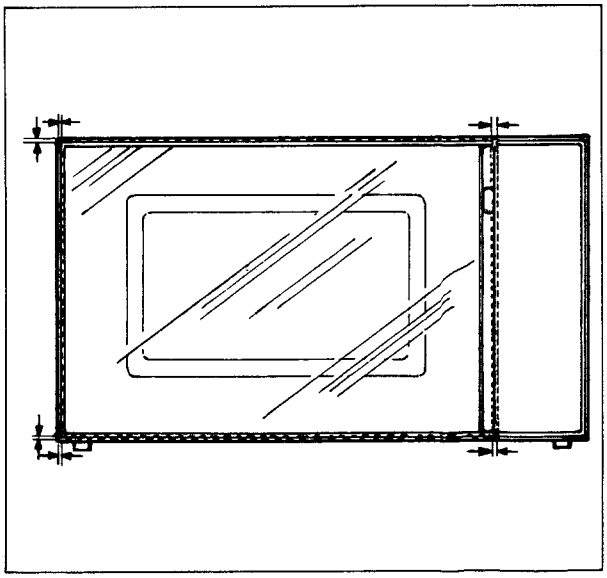


Fig. 28

MEASUREMENTS AND ADJUSTMENTS

NOTE: Please note this model has no test resistor for measuring diode or anode current. When you check the high voltage circuit, follow the procedure in the troubleshooting guide on page 24.

WARNING

FOR CONTINUED PROTECTION AGAINST RADIATION HAZARD, REPLACE ONLY WITH IDENTICAL REPLACEMENT PARTS (PART NO. ANE6142-780, TYPE NO.V-15-3C28 FOR LATCH SWITCH A AND B AND PART NO. ANE6158 B60AP, TYPE NO. V-5-3C244 FOR SHORT SWITCH).

WHEN THE 15 AMP FUSE IS BLOWN DUE TO THE OPERATION OF SHORT SWITCH, YOU MUST REPLACE LATCH SWITCH A, LATCH SWITCH B AND SHORT SWITCH THEN FOLLOW THE ADJUSTMENT PROCEDURES BELOW.

1. Adjustment of latch switch A (primary)

(A) Mounting of the latch switch to the door hook. Mount latch switch A to the door hook assembly by securing the screws as shown in fig. 29 & 30.

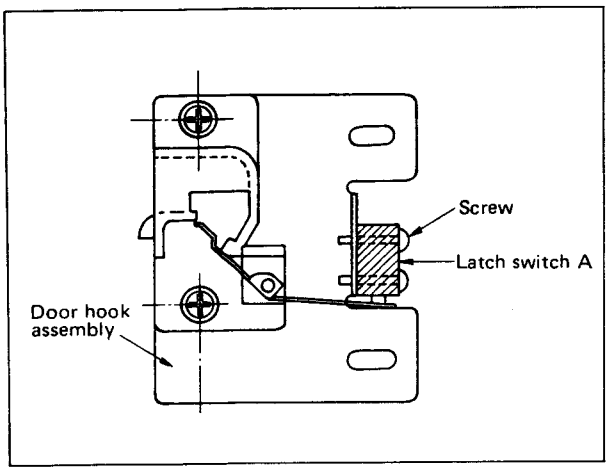


Fig. 29

NOTE: No specific adjustment during installation of latch switch A to the door hook is necessary.

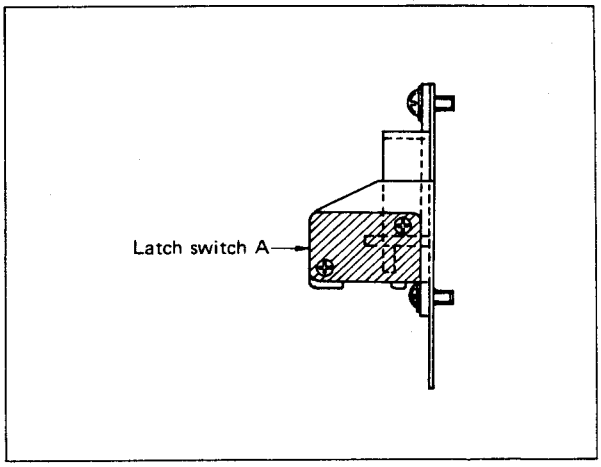


Fig. 30

(B) Installation of the door hook assembly to the oven assembly.
When mounting the door hook assembly to the oven assembly, be sure to adjust the door hook assembly by moving in the arrow direction so that the oven door will not have any play in it.
Check for play in the door by pulling on the door handle without pushing the handle's latch button. Make sure that the latch key positions correctly during adjustment. Also make sure that the latch key moves smoothly after adjustment is completed.
Completely tighten the screws holding the door hook assembly to the oven assembly.

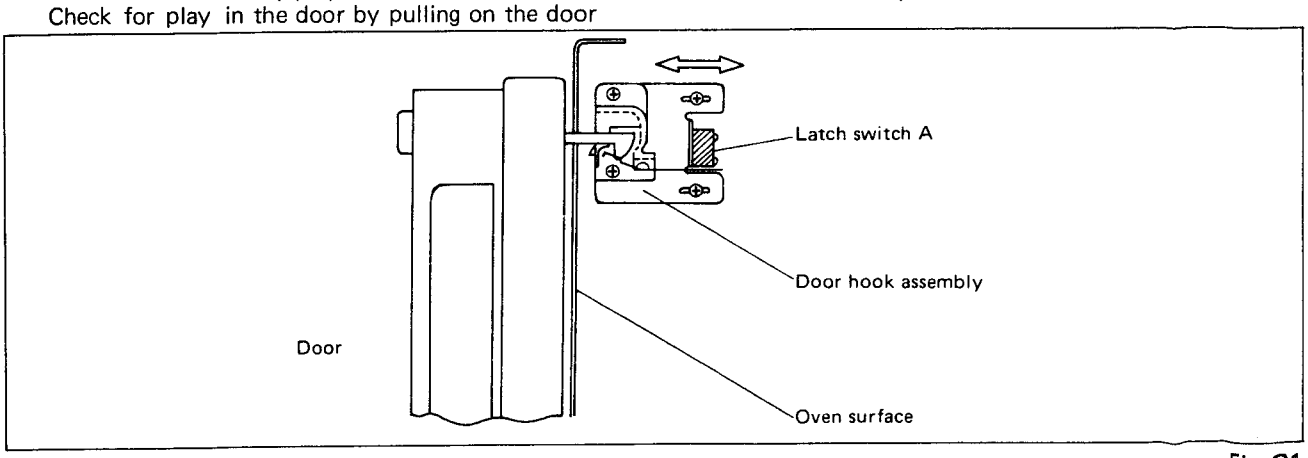


Fig. 31

2. Adjustment of latch switch B (secondary), short switch and oven lamp switch

(A) Mounting of latch switch B, the short switch and oven lamp switch to the door hook assembly.
Latch switch B, short switch and oven lamp switch are installed onto the door hook assembly as shown in fig.32

NOTE: No specific adjustment during installation of latch switch B, the short switch and oven lamp switch to the door hook is necessary.

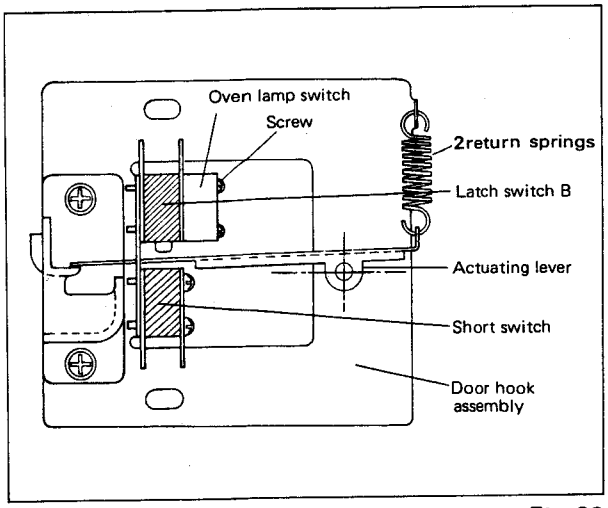


Fig. 32

(B) Installation of the door hook assembly to the oven assembly.
Adjust the door hook by moving it in the direction of arrow in fig. 33 so that the oven door will not have any play in it. Check for play in the door by pulling on the door handle without pushing the handle's latch button. Make sure that the latch key moves smoothly after adjustment is completed. Completely tighten the screws holding the door hook assembly to the oven assembly.

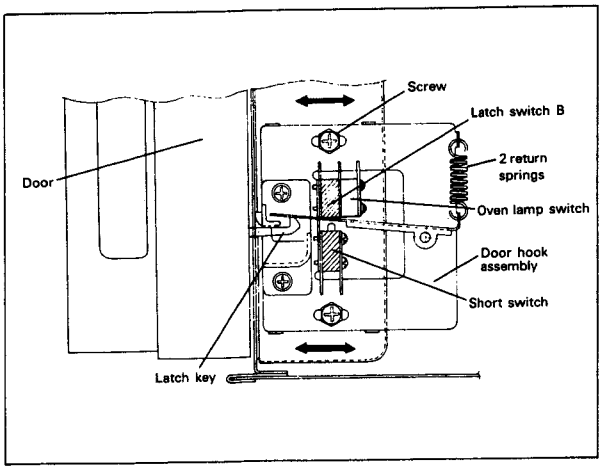


Fig. 33

3. Measurement of the magnetron's output

The power output of the magnetron can be measured by performing a simple water temperature rise test.
Equipment needed for the Test:
* Two 1 liter beakers
* One glass thermometer

NOTE: Check the line voltage under load. Low voltage will lower the magnetron output. Make all temperature and time tests with accurate equipment.

(A) Fill the two 1 liter beakers with water and mark one A and one B.
(B) Stir the water in each beaker with the thermometer and record each beaker's temperature.
Beaker A's temperature = T1A
Beaker B's temperature = T1B
(C) The average value (T1) of T1A and T1B is calculated as follows:

$$T1 = \frac{T1A + T1B}{2}$$

(D) Place both beakers on the center of the glass cook plate.
Set the oven for High power and set two minutes. Heat the water for exactly two minutes.
(E) When the heating is finished, again stir the water with the thermometer and measure the temperature rises as T2A and T2B.
(F) The average value (T2) of T2A and T2B is calculated as follows:

$$T2 = \frac{T2A + T2B}{2}$$

(G) Subtract T1 from T2. This will give you the temperature rise.
(H) The normal temperature rise for this model is 16° to 20°F (8.9 to 11°C) at the "High" power selection.
*If no temperature rise is noted, refer to the "TROUBLESHOOTING GUIDE"

PROCEDURE FOR MEASURING RADIATION LEAKAGE

WARNING

CHECK FOR RADIATION LEAKAGE AFTER EVERY SERVICING. SHOULD THE LEAKAGE BE MORE THAN 2 mW/cm² (1mW/cm² FOR CANADA) INFORM THE PANASONIC CO. (MECA, PHI OR MELCA) IMMEDIATELY. AFTER REPAIRING OR REPLACING ANY RADIATION SAFETY DEVICE, KEEP A WRITTEN RECORD FOR FUTURE REFERENCE, AS REQUIRED BY HEW AND NHW REGULATION. THIS REQUIREMENT MUST BE STRICTLY OBSERVED. IN ADDITION THE LEAKAGE READING MUST BE RECORDED ON THE SERVICE REPAIR TICKET WHILE IN THE CUSTOMER'S HOME.

NOTE: The U.S. government standard is 5 mW/cm² while in the customer's home. 2 mW/cm² stated here is Panasonic's own voluntary standard.

1. Equipment

* Electromagnetic radiation monitor
* Glass thermometer 100°C or 212°F
* 600cc glass beaker

2. Procedure for measuring radiation leakage

(A) Pour 275 ± 15cc (9 ozs ± 1/2 oz) of 20 ± 5°C (68 ± 9°F) (50cc for Canada) water in a beaker which is graduated to 600cc, and place the beaker in the center of the oven.

(B) Set the radiation monitor to 2450 MHz and use it following the manufacturer's recommended test procedure to assure correct results.

(C) When measuring the leakage, always use the 2 inch (5 cm) spacer supplied with the probe.

(D) Press the start button and with the magnetron oscillating, measure the leakage by using an electromagnetic radiation monitor by holding the probe perpendicular to the surface being measured.

(1) Measurement with the outer panel removed.

Whenever you replace the magnetron, measure for radiation leakage before the outer panel is installed and after all necessary components are replaced or adjusted.

Special care should be taken in measuring around the magnetron. (Fig. 34)

WARNING

AVOID CONTACTING ANY HIGH VOLTAGE PARTS.

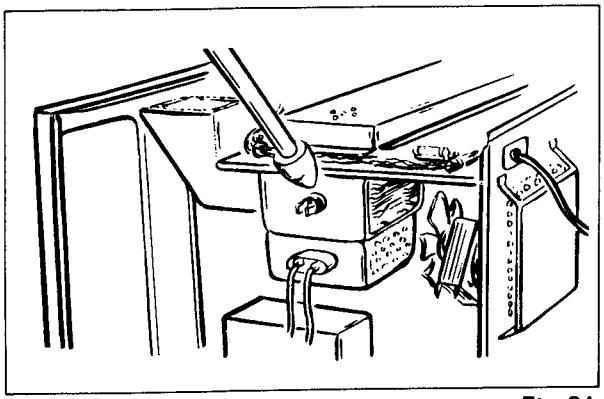


Fig. 34

(2) Measurements with a fully assembled oven.

After all components, including the outer panel, are fully assembled, measure for radiation leakage around the door periphery, the door viewing window, the exhaust opening and air inlet openings.

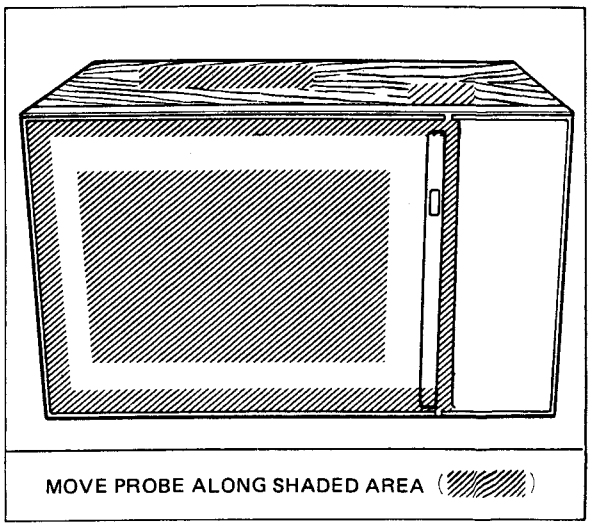


Fig. 35

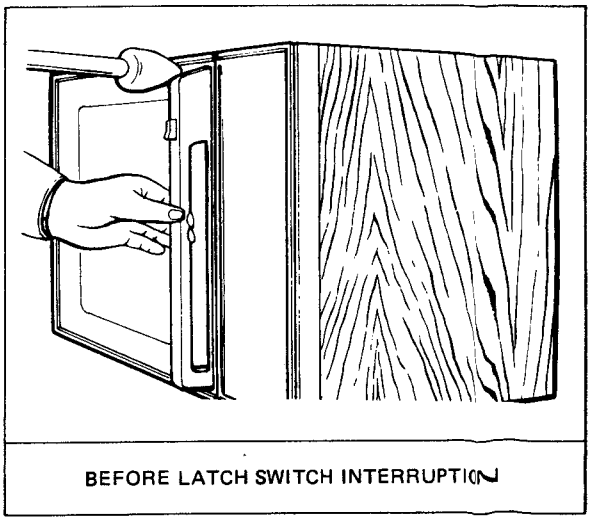


Fig. 36

(E) Radiation leakage must not exceed the values prescribed below.

NOTE 1. **Leakage with the outer panel removed.....less than 5 mW/cm^2**

2. **Leakage for a fully assembled oven with door normally closed ..... less than 2mW/cm^2 (1mW/cm^2 for Canada)**

3. **Leakage for a fully assembled oven [Before the latch switch (primary) is interrupted] with door pulled to outward.....less than 2mW/cm^2**

3. Note when measuring

(A) Do not exceed meter full scale deflection.

(B) The test probe must be moved no faster than 1 inch/sec (2.5 cm/sec) along the shaded area, otherwise a false reading may result.

(C) The test probe must be held with the grip portion of the handle. A false reading may result if the operator's hand is between the handle and the probe.

(D) When testing near a corner of the door, keep the probe perpendicular to the surface making sure the probe end at the base of the cone does not get closer than 2 inches (5cm) from any metal. If it does, erroneous readings may result.

(E) When high leakage is suspected, do not move the probe horizontally along the oven surface, this may possibly cause probe damage.

4. Record keeping and notification after measurement

(A) After any adjustment or repair to a microwave oven a leakage reading must be taken. Record this leakage reading on the repair ticket even if it is zero.
A copy of this repair ticket and the microwave leakage reading should be kept by repair facility.

(B) Should the radiation leakage be more than 2 mW/cm^2 (1mW/cm^2 for Canada) after determining that all parts are in good condition, functioning properly, and genuine replacement parts as listed in this manual have been used, immediately notify the PANASONIC Co. (MECA, PHI or MELCA).

5. At least once a year, have the radiation monitor checked for calibration by its manufacturer

CUSTOMER COMPLAINTS NOT RELATED TO OVEN FAILURE

When you get a complaint from your customer, please investigate the complaint carefully before going to the customer's home. If the following symptoms apply, please educate the customer in the proper use of the microwave oven in order to eliminate an unnecessary call.

CONDITION	CAUSE	REMEDY
Microwave oven does not work	Inserting many plugs into one plug receptacle and using them at the same time (causes overloading)	Avoid using other electrical appliances when you use the microwave oven
	Microwave oven plug is not inserted tightly	Insert microwave oven plug tightly
Output power is too low	Low power voltage	Use the microwave oven at adequate electrical power
	Food temperature is too low	This is not, in reality a problem, therefore plese expect to cock a little longer
Sparks occuring	Using metallic ware and allowing it to touch the oven wall	Do not use metallic ware for cooking except where noted in the cook book.
	Ceramic ware trimmed in gold or silver powder is used	Do not use any type of cookware with metallic trimming
Uneven cooking	Inconsistent intensity of microwave by its characteristics	1. Wrap the thinner part with aluminum foil 2. Use plastic wrap or cover with a lid 3. Stir once or twice while cooking such as soup, cocoa or milk.

TROUBLESHOOTING GUIDE

1. Check grounding before checking for trouble.
2. Be careful of the high voltage circuit.
3. Discharge the high voltage capacitor (see page 14)
4. When checking the continuity of the switches or of the high voltage transformer, disconnect one lead wire from these parts and then check continuity with the AC plug removed. To do otherwise may result in a false reading or damage to your meter.
5. Do not touch any part of the circuitry on the digital programmer circuit since static electric discharge may damage this control panel. Always touch yourself to ground while working on this panel to discharge any static charge built up in your body.

First of all operate the microwave oven following the correct operating procedures described on pages 4—10 in order to find exact cause of any trouble.

[TROUBLE 1] The following visual conditions indicate a probable defective digital programmer circuit (D.P.C.).

1. Incomplete segments
   A. Segments missing.
   B. Partial segments missing.
   C. Digit flickering other than normal fluorescent slight flickering.
   D. Colon does not turn on or does not blink when the clock set button is pressed.
2. A distinct change in the brightness of one or more numbers in the display.
3. One or more digits in the display not on when they should be.
4. Wrong or no power indicator light for power level selected.
5. Display indicates a number different from one touched.
   For example, touch 5 and 3 appears in the display.
6. Specific numbers (for example 2 or 3) will not display.
7. Display does not count down with time cooking or when using display as a timer.
8. Display does not count up with clock operation.
9. Oven is programable and cooks normally but no display shows.
10. Display obviously jumps in time while counting down or up.
11. Display counts down noticeably too fast while cooking.
12. Display can not shift from the first stage cooking to the second stage cooking while 2-phase cooking.
13. Display does not stop counting down with time cooking even when stop pad is tapped.
14. TOD does not reappear when cooking is finished.

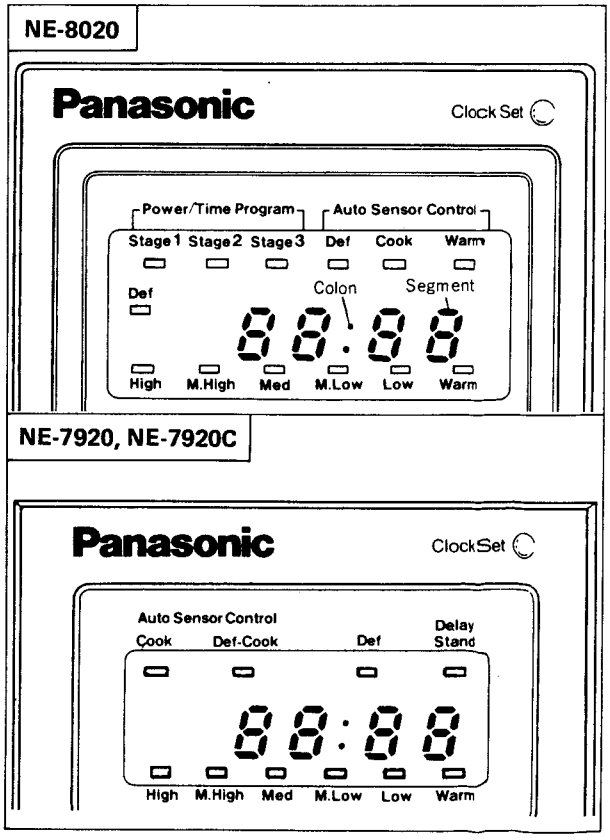
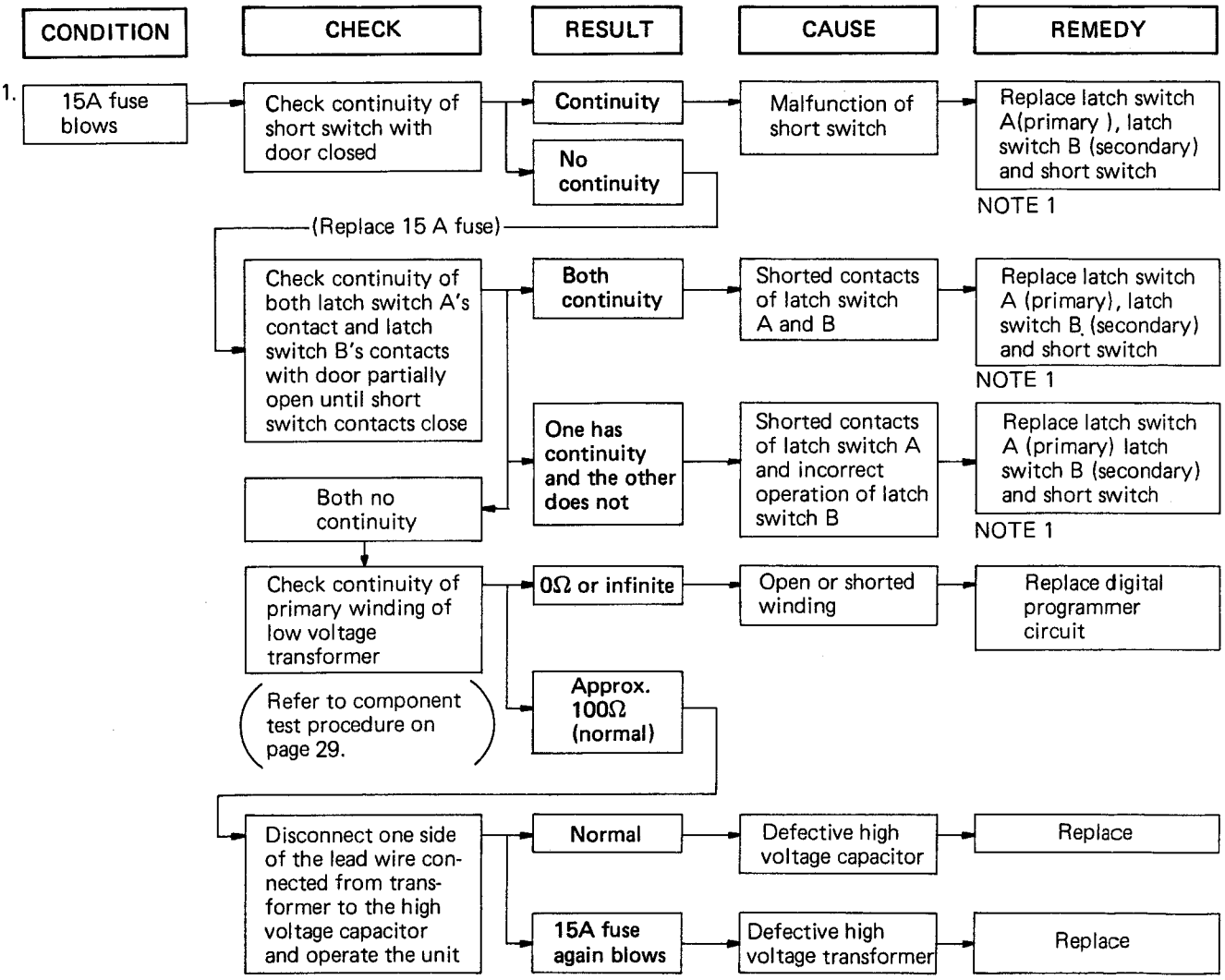
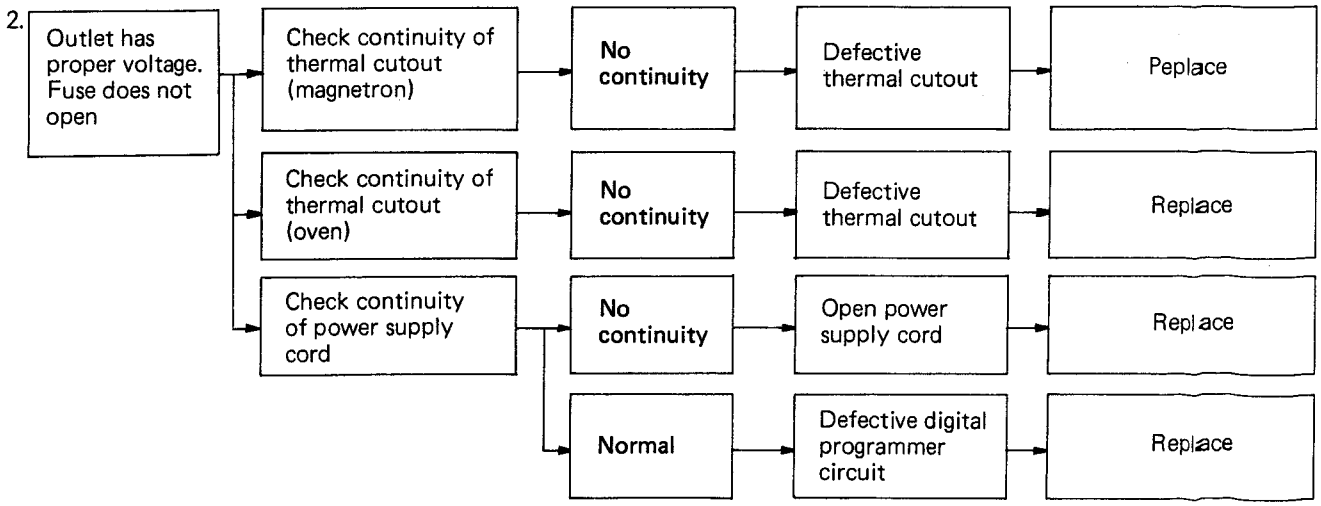


Fig. 37

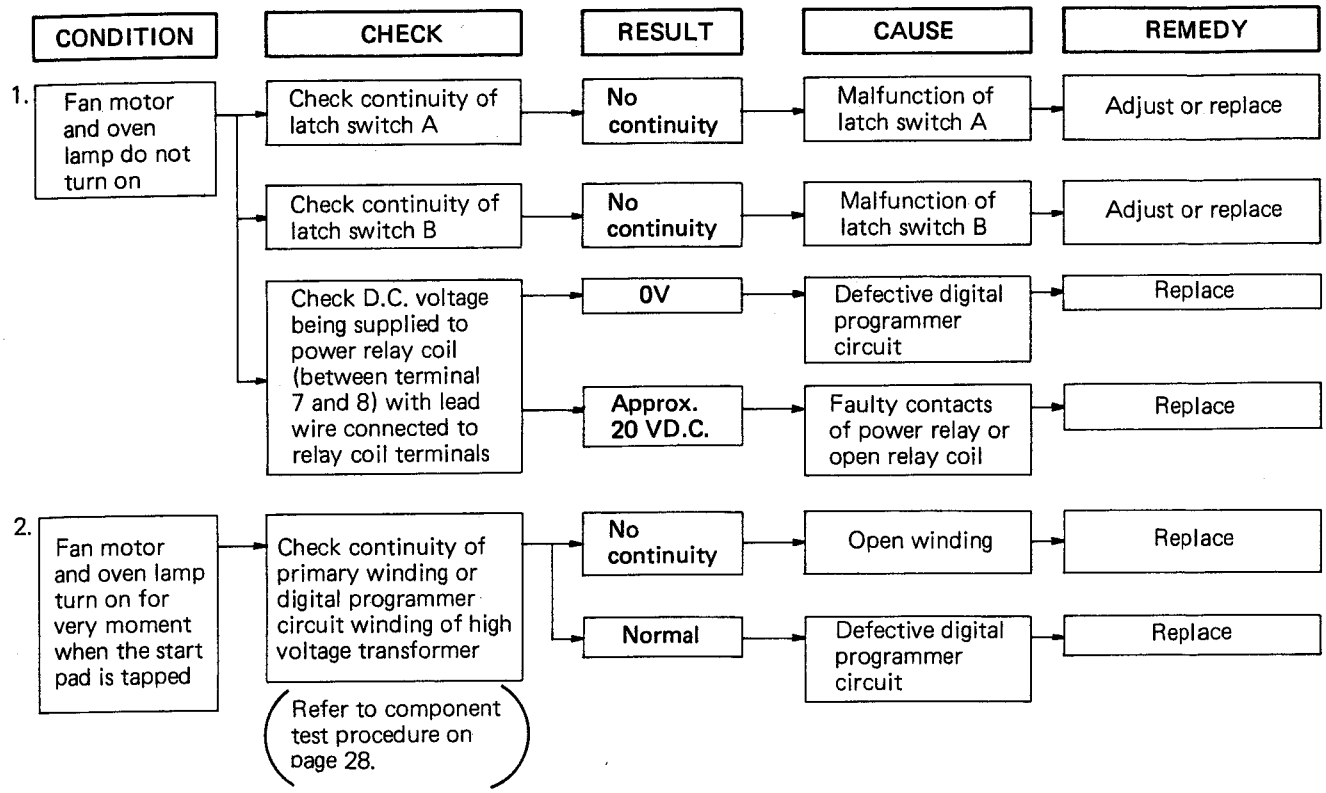
[TROUBLE 2] **Oven does not operate at all; Display window does not dispaly any figures and any inputs can not be accepted.**


CONDITION
CHECK
RESULT
CAUSE
REMEDY
1.
15A fuse blows
Check continuity of short switch with door closed
Continuity
No continuity
Malfunction of short switch
Replace latch switch A(primary), latch switch B (secondary) and short switch
NOTE 1
(Replace 15 A fuse)
Check continuity of both latch switch A's contact and latch switch B's contacts with door partially open until short switch contacts close
Both continuity
Shorted contacts of latch switch A and B
Replace latch switch A (primary), latch switch B (secondary) and short switch
NOTE 1
One has continuity and the other does not
Shorted contacts of latch switch A and incorrect operation of latch switch B
Replace latch switch A (primary) latch switch B (secondary) and short switch
NOTE 1
Both no continuity
Check continuity of primary winding of low voltage transformer
Refer to component test procedure on page 29.
0Ω or infinite
Open or shorted winding
Replace digital programmer circuit
Approx. 100Ω (normal)
Disconnect one side of the lead wire connected from transformer to the high voltage capacitor and operate the unit
Normal
Defective high voltage capacitor
Replace
15A fuse again blows
Defective high voltage transformer
Replace

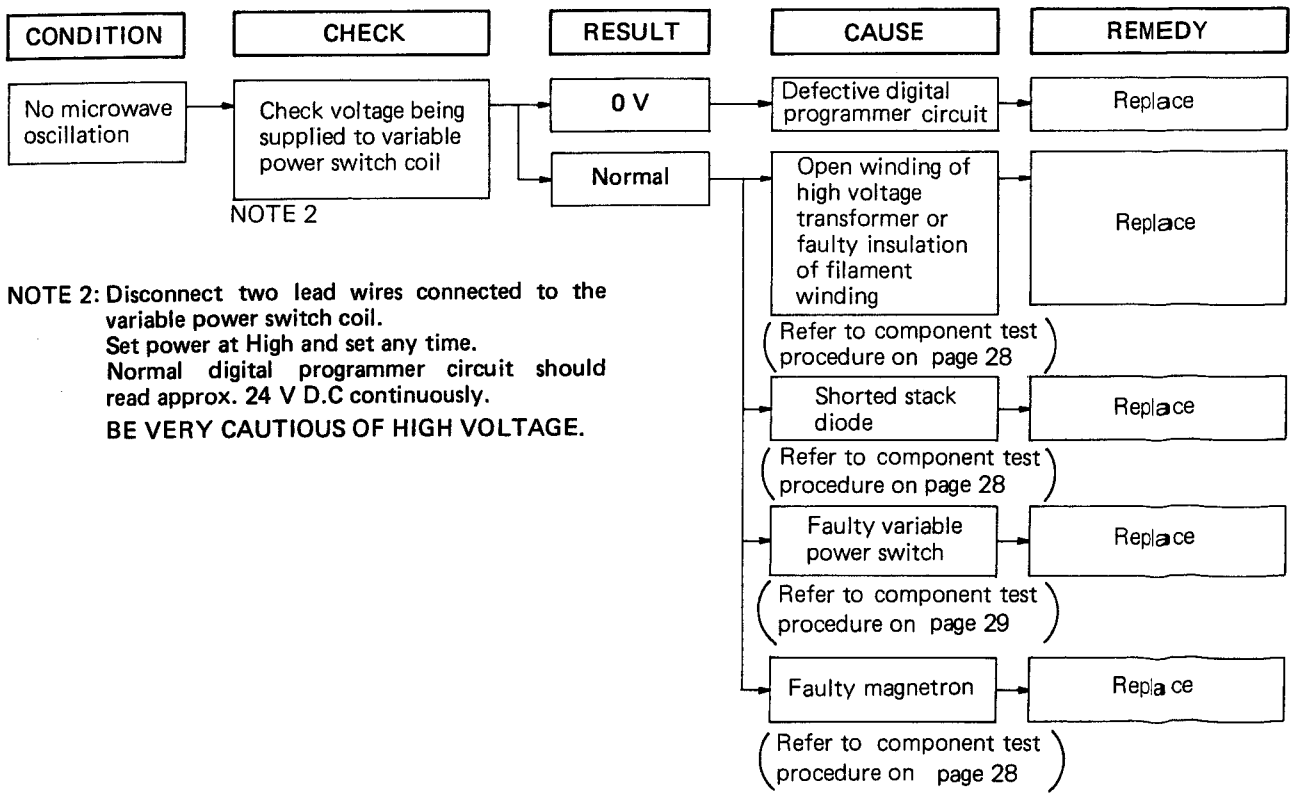
NOTE 1: All these switches must be replaced at the same time, please refer to pages 19 and 20 for adjustment instructions.



[TROUBLE 3] Display shows all figures set, but microwave oven does not start cooking even though desired power and time are set and start pad is tapped.


CONDITION
CHECK
RESULT
CAUSE
REMEDY
1.
Fan motor and oven lamp do not turn on
Check continuity of latch switch A
No continuity
Malfunction of latch switch A
Adjust or replace
Check continuity of latch switch B
No continuity
Malfunction of latch switch B
Adjust or replace
Check D.C. voltage being supplied to power relay coil (between terminal 7 and 8) with lead wire connected to relay coil terminals
0V
Defective digital programmer circuit
Replace
Approx. 20 VD.C.
Faulty contacts of power relay or open relay coil
Replace
2.
Fan motor and oven lamp turn on for very moment when the start pad is tapped
Check continuity of primary winding or digital programmer circuit winding of high voltage transformer
Refer to component test procedure on page 28.
No continuity
Open winding
Replace
Normal
Defective digital programmer circuit
Replace

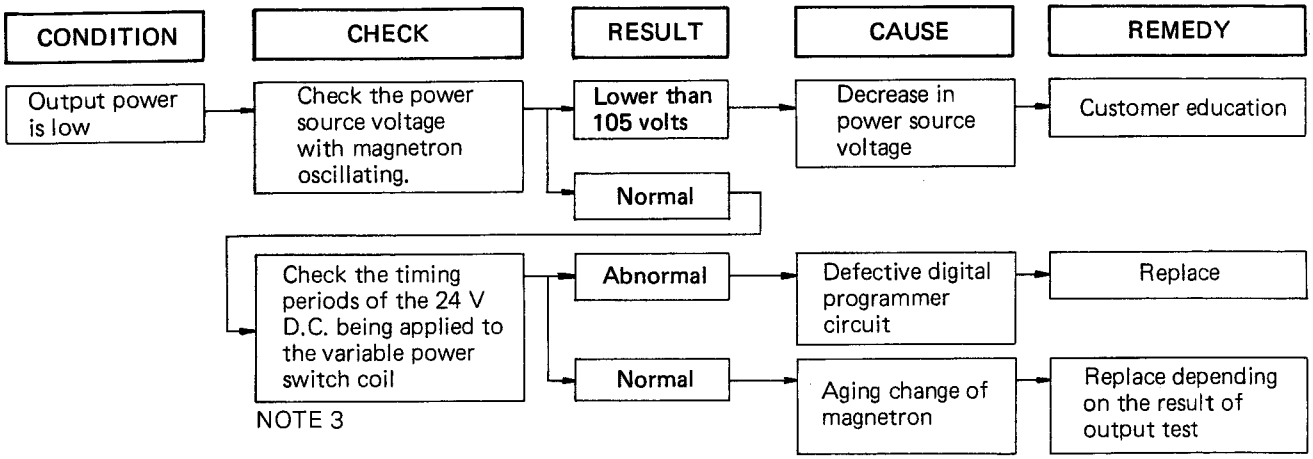
[TROUBLE 4] Oven does not cook at all even though fan motor rotates (No microwave oscillation)



NOTE 2: Disconnect two lead wires connected to the variable power switch coil.
Set power at High and set any time.
Normal digital programmer circuit should read approx. 24 V D.C continuously.
BE VERY CAUTIOUS OF HIGH VOLTAGE.

[TROUBLE 5] Output power is low.

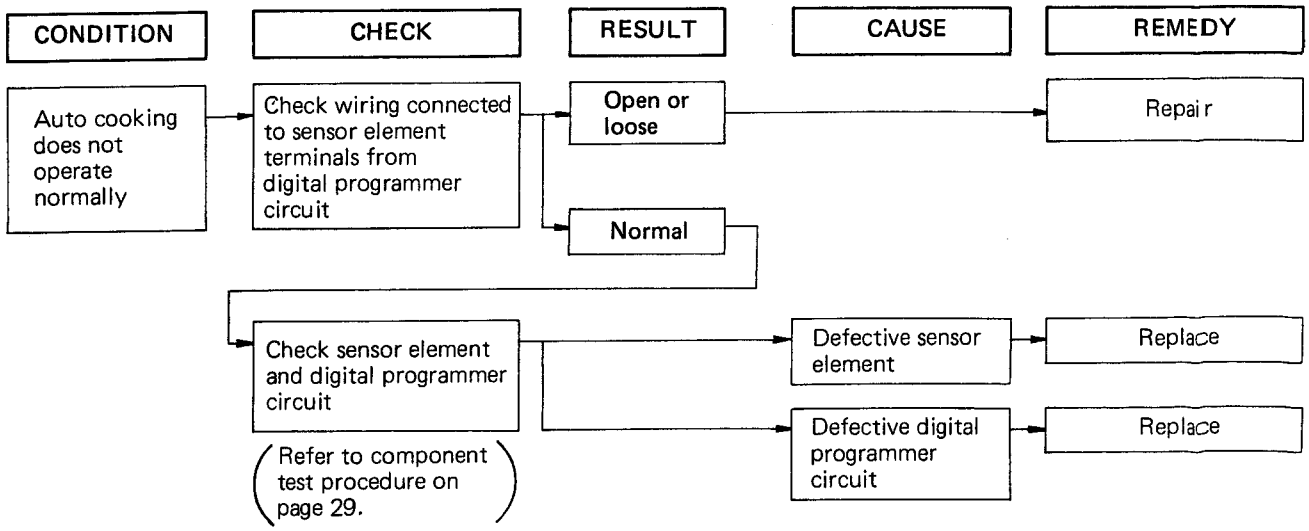
First of all, check if output power is realy low following "measurement of magnetron's output" on page 20.



NOTE 3: The following chart shows the timing periods of the variable power switch.

POWER	24 V ON TIME	24 V OFF TIME
High	22 (seconds)	0 (seconds)
M. High	20	2
Med.	15	7
M.Low	11	11
Low	6	16
Warm	2	20
Defrost	7	15

[TROUBLE 6] Microwave oven does not operate normally, only when auto sensor cooking is selected.



COMPONENT TEST PROCEDURE

1. High voltage is present at the high voltage terminal of the high voltage transformer during any cook cycle.
2. It is neither necessary nor advisable to attempt measurement of the high voltage.
3. Before touching any oven components, or wiring, always unplug the oven from its power source and discharge the capacitor (See page 14)

1. High voltage transformer (refer to Fig. 38)

(A) Remove connections from the transformer terminals and check continuity.
(B) Normal readings should be follows:

Secondary winding . . . . . .Approx. 50Ω~70Ω

Filament winding . . . . . .Approx. 0Ω

Primary winding . . . . . .Approx. 0Ω

Digital programmer winding .Approx. 0Ω

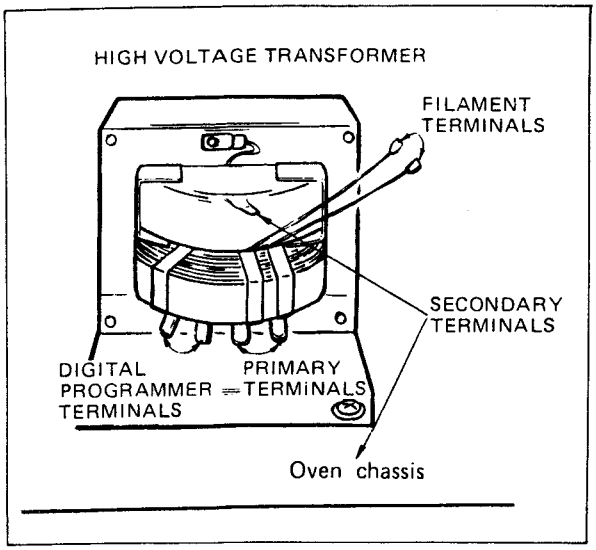


Fig. 38

2. High voltage capacitor

(A) Check continuity of capacitor with meter on highest OHM scale.
(B) A normal capacitor will show continuity for a short time, and then indicate 9MΩ once the capacitor is charged.
(C) A shorted capacitor will show continuous continuity.
(D) An open capacitor will show constant 9 MΩ.
(E) Resistance between each terminal and chassis should be infinite.

3. Diode

The diode is located on the base near the transformer.

(A) Isolate the diode from the circuit by disconnecting the leads.
(B) With the ohmmeter set on the highest resistance scale, measure the resistance across the diode terminals. Reverse the meter leads and again observe the resistance reading. Meter with 6V, 9V or higher voltage batteries should be used to check the front-to-back resistance of the diode, otherwise an infinite resistance may be read in both directions. A normal diodes' resistance will be infinite in one direction and several hundred KΩ in the other direction.

4. Magnetron

For complete magnetron diagnosis, refer to "Measurement of the Magnetron's output" (page 20). Continuity checks can only indicate an open filament or a shorted magnetron. To diagnose for an open filament or shorted magnetron.

(A) Isolate magnetron from the circuit by disconnecting the leads.
(B) A continuity check across magnetron filament terminals should indicate one ohm or less.
(C) A continuity check between each filament terminal and magnetron case should read open.

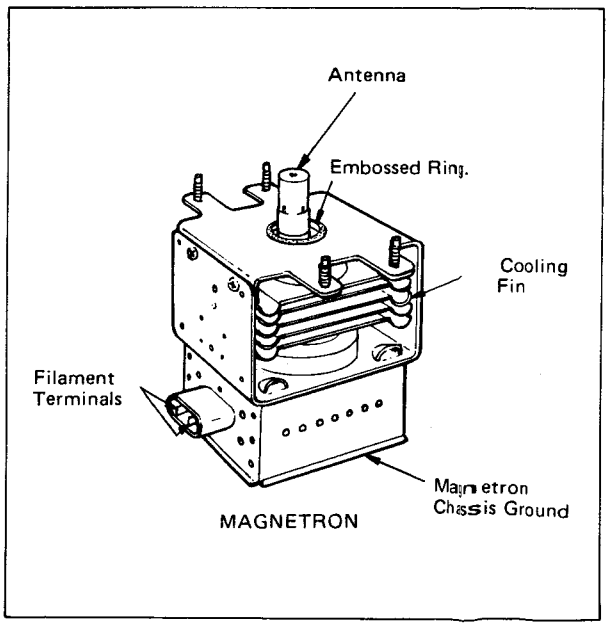


Fig. 39

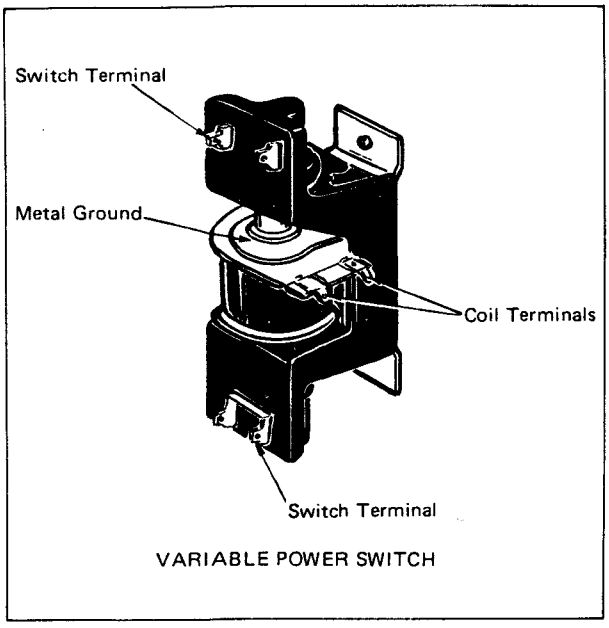
5. Variable power switch

(A) Isolate the variable power switch from the circuit by disconnecting all leads and check continuity.
(B) A continuity check across the switch coil should be about 200 ohms.
(C) A continuity check between switch terminals should read open.
(D) A continuity check between each switch terminal and ground should read open.
(E) In order to check if the contacts of the variable power switch are operating normally, do the following test procedure.

1) Be sure to isolate variable power switch from the high voltage circuit by disconnecting all leads except two leads connected to coil terminals from P.C.B.
2) Now select a power other than "High" and start the oven.

BE VERY CAUTIOUS OF THE HIGH VOLTAGE.

3) Check the continuity between both switch terminals.
4) Variable power switch contacts are working properly if the ohm meter reads open or 0 ohm when click is heard.



VARIABLE POWER SWITCH

Fig. 40

6. Low voltage transformer

The low voltage transformer is located in lower side of the digital programmer circuit.

(A) Remove lead wire connector of the low voltage transformer from lead wire harness and check continuity.
(B) Normal reading of primary winding is about 90 – 110 ohm.

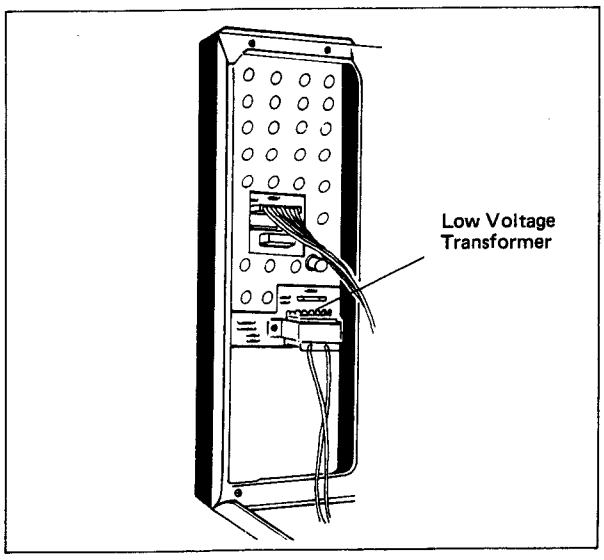


Fig. 41

7. Sensor element and Digital programmer circuit

CAUTION

Do not touch any part of the circuitry on the digital programmer circuit since static electric discharge may damage this control panel. Always ground yourself while working on this panel to discharge any static charge built up in your body.

(A) Check across the sensor heater terminals. Normal cold resistance should read about 6 ohm.
(B) In order to make sure if the auto sensor function of digital programmer circuit is in working order or not, do the following test procedure.

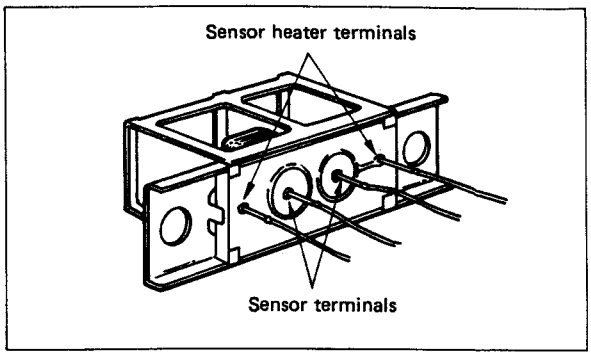


Fig. 42

1) Place a water load in the oven.
2) Unsolder the two lead wires connected to the sensor terminals.
3) Tap Cook Select pad once to set auto cooking at A1. Indicator light (Auto Cook Indicator Light for models NE-7920, NE-7920C or Cook Status Indicator Light for model NE-8020) turns on and A1 appears in the display window.
4) Tap Start pad to start auto cooking. The indicator light starts blinking.
   One blink equals one second.
5) About 10 seconds after Start pad is touched, short the disconnected lead wires for 5 seconds and then open. You can count 10 seconds by 10 blinks of the indicator light. Before shorting the lead wires you can watch the sensor heater glow red.
6) The oven lamp will dim a little, about a minute after the Start pad is touched. This indicates that the magnetron has started oscillation.
7) 10 seconds after magnetron oscillation, short the disconnected lead wires again. Auto cooking A1 stops automatically when lead wires are shorted.

The auto sensor function in the digital programmer circuit is in working order if above condition is obtained.

DIGITAL PROGRAMMER CIRCUIT TEST PROCEDURE

(A) In order to determine if the DPC is defective or not, conduct the following test procedure along with the visual tests described in Trouble 1 on page 24.

(B) Also, after replacing a defective DPC test the new part according to step A, directly above.

1) Connect the power supply cord plug into the wall receptacle and place a water load in the oven, the display window will show 00:00 and the colon will blink.
2) Enter the time of the day (TOD) by tapping the appropriate number pads.
   For example, if it is 10:25 (a.m. or p.m.), tap 10 min. pad once, 10 sec. pad twice and 1 sec. pad 5 times. The display window will show 10:25 with the colon blinking.
   Push Clock Set button again. The colon stops blinking and TOD can be registered into the digital programmer circuit.
3) Tap Power Select pad.
   The display window will show 00 00 for any power other than Low power. For Low power, the display will show OH 00. The Power Indicator Light you set turns on and for NE-8020 Stage 1 Indicator Light also turns on.
   One tap : High power indicator light
   Two taps : M. High power indicator light
   Three taps : Med power indicator light
   Four taps : M. Low power indicator light
   Five taps : Low power indicator light
   Six taps : Warm power indicator light
4) Tap Reset/ Stop pad. The display window will show TOD again.
5) Select High power and set the time at 12 minutes 34 seconds.
   High Power Indicator Light turns on and for NE-8020 Stage 1 Indicator Light turns on. And the display shows 1234.
6) Tap Start pad.
   Stage 1 Indicator Light for NE-8020 or High Power Indicator Light for NE-7920, NE-7920C start blinking. Timer counts down by seconds. Microwave activity starts. Fan motor and turntable begin to rotate. Oven light turns on.
7) Press the handle latch button. Stage 1 Indicator Light for NE-8020 or High Power Indicator Light for NE-7920, NE-7920C stops blinking. Timer stops counting down. Microwave activity stops. Fan motor and turntable stop functioning. Oven light turns off.
8) Touch Start pad again. Oven operates as item 6.
9) Tap Reset/Stop pad. Oven stops functioning as item 7.
10) Tap Reset/Stop pad again. TOD reappears in the display window.
11) Remove the water load from the oven.
12) Pour 150 ± 15 cc (4.5 ± 1/2 ozs) of room temperature water in a beaker, securely cover the top of the beaker with plastic wrap and place the beaker in the center of the oven.
13) Tap Auto Sensor "Cook" pad 4 times. Auto Cook Indicator Light for NE-7920 & NE-7920C or Cook Status Indicator Light for NE-8020 turns on. And the display window shows A4.
14) Touch Start pad to start Auto Cooking A4.
    Auto Cook Indicator Light or Cook Status Indicator Light blinks.
    Fan motor and turntable begin to rotate. Oven light turns on.
15) The oven light will dim a little, about a minute after Start pad is touched. This indicates that the magnetron has started oscillation.
16) Auto Cooking automatically switches to time cooking, A4 disappears and 200 to 300 (2 min. to 3 min.) appears in the display window as balance of cooking time. The cooking time will change depending on the water temperature, the shape of the beaker or power source voltage.
17) When the balance of cooking time has elapsed. oven stops and TOD reappears in the display window and oven beeps 5 times. finally make sure that TOD in the display is correct.

NECESSARY TOOLS AND MEASURING INSTRUMENTS

1. Necessary tools

Tools normally used for TV servicing are sufficient. Standard tools are listed below.

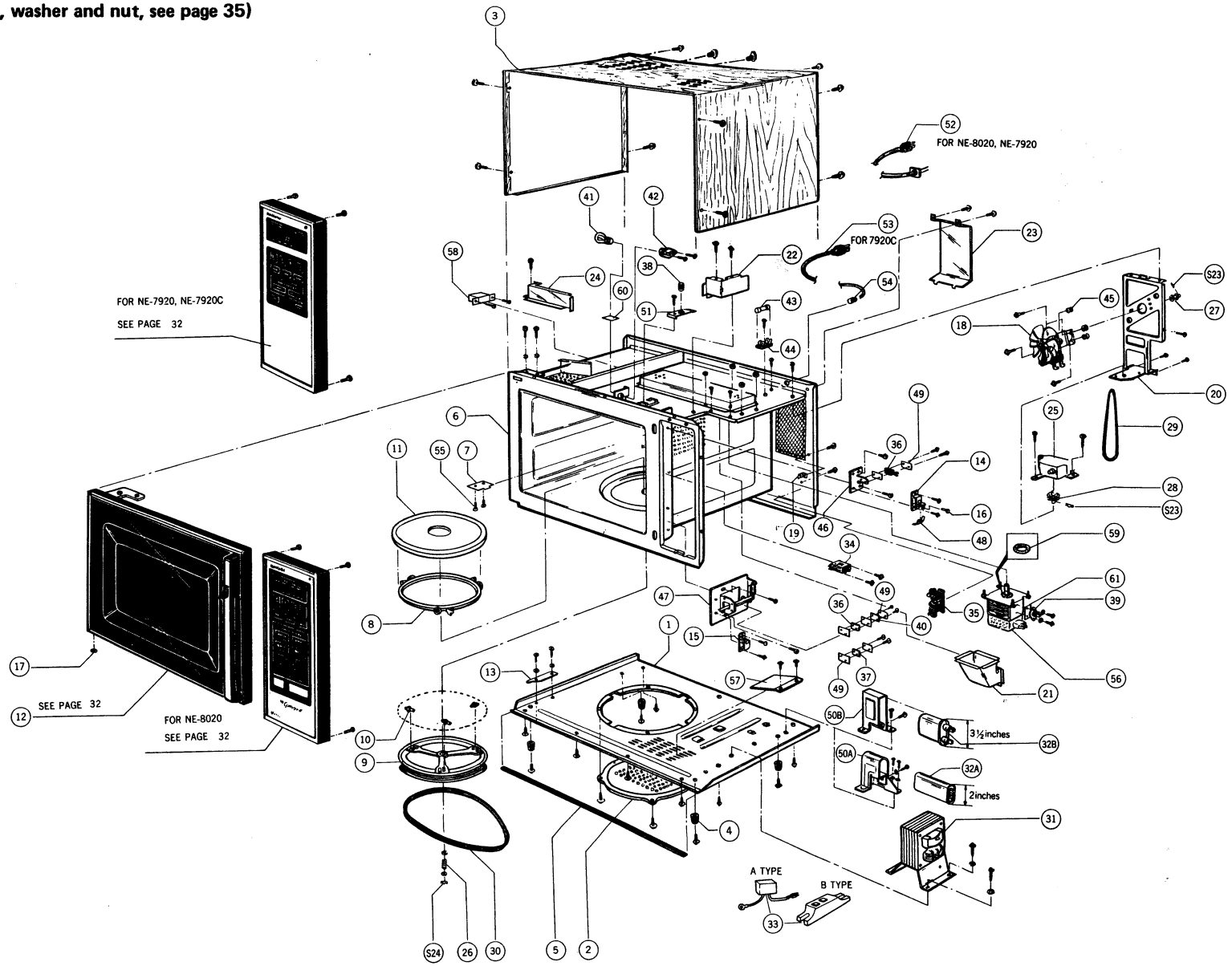
* Diagonal pliers
* Phillips head screwdriver
* Socket wrench (SIZE 8, 15mm)
* Nutdriver (SIZE 5.5, 7, 8 mm)
* Solder
* Vinyl insulation tape
* Long nose pliers
* Slotted head screwdriver
* Adjustable wrench
* Soldering iron
* Polishing cloth

2. Necessary measuring instruments

* Tester (Volt D.C/A.C – Ohm meter)
* Ruler
* Electromagnetic radiation monitor
* Stop watch
* 600 cc glass beaker or equivalent
* Glass thermometer 100°C or 212°F
* Two 1 liter beakers or equivalent

EXPLODED VIEW

(For screws, washer and nut, see page 35)



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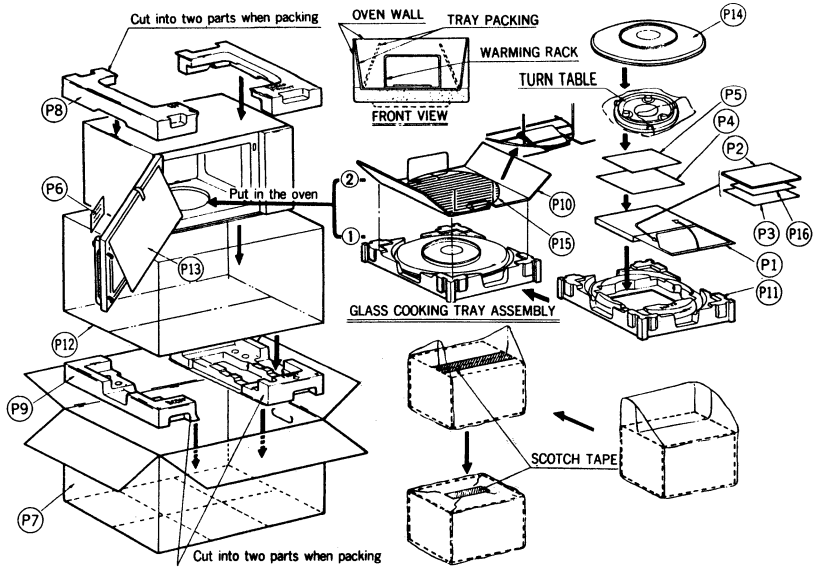
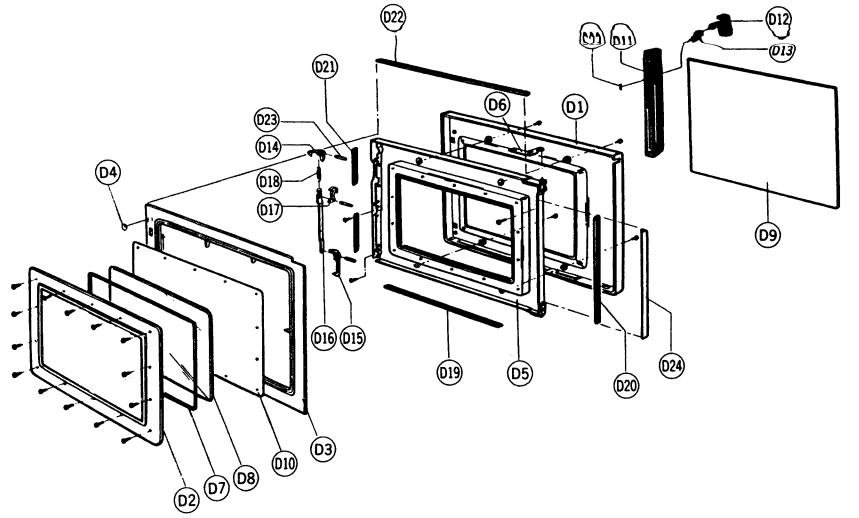
PACKING AND ACCESSORIES

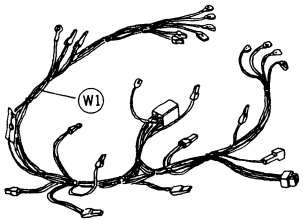


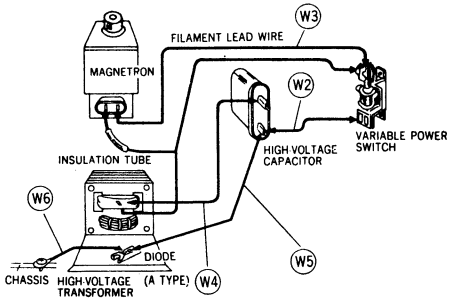
REF. NO. 12 DOOR ASSEMBLY

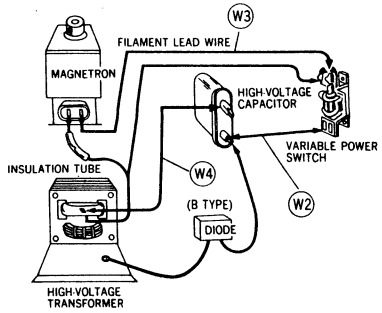
For screws, washer and nut, see page 35.



WIRING MATERIAL







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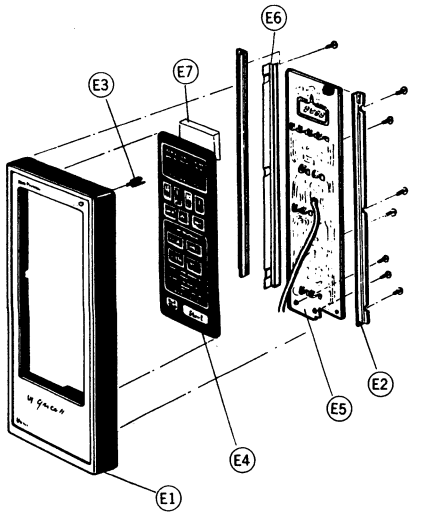
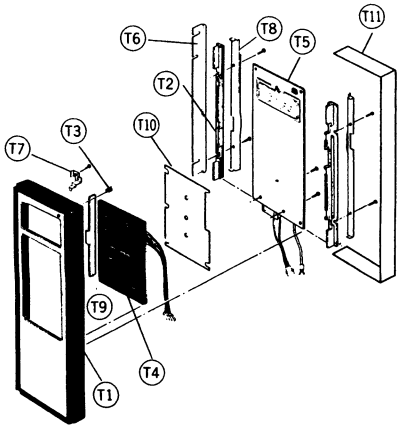
DIGITAL PROGRAMMER CIRCUIT FOR NE-8020

FOR NE-7920, NE-7920C

For screws, washer and nut, see page 35.





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PARTS LIST

NOTE: Part numbers are indicated on all parts. Please use these Part Numbers for parts orders.

Components indentified by shaded area have special characteristics important for safety, when replacing any of these components use only manufacturer's specified parts.

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
1	ANE1001B60AP	Base	1	
2	ANE1026B60AP	Turntable cover A	1	
3	ANE110DG00AP	Outer panel	1	
4	ANE1008-760	Rubber foot	4	
5	ANE1047B60AP	Lower sash	1	
6	ANE201AG10AP	Oven assembly	1	
7	ANE2055-850	Cover A	1	
8	ANE290D-860	Roller ring assembly	1	
9	ANE201B-810	Pulley D	1	
10	ANE201KB60AP	Roller A assembly	1	(NOTE 1)
11	ANE201FB60AP	Turntable	1	
12	ANE301EB60AP	Door assembly	1	
13	ANE3007B60AP	Lower hinge	1	
14	ANE3020B60AP	Door hook A	1	
15	ANE3267B60AP	Door hook B	1	
16	ANE3273B60AP	Lever pin	1	
17	ANE3081B60AP	Door hinge spacer	1	
18	ANE400YB60AP	Fan motor assembly	1	
19	ANE4111B60AP	Fan motor bracket A	1	
20	ANE4112B60AP	Fan motor bracket B	1	
21	ANE401EB60AP	Air guide A assembly	1	
22	ANE400SB60AP	Air guide C	1	
23	ANE402EB60AP	Air guide D	1	
24	ANE401BB60AP	Exhaust guide B assembly	1	
25	ANE490C-820	Gear box assembly	1	
26	ANE4143-810	Pulley stopper spring	1	
27	ANE4131-810	Pulley A	1	
28	ANE4133B60AP	Pulley C	1	
29	ANE4060B60AP	Belt A	1	
30	ANE4110-860	Belt B	1	
31	ANE6005B60AP	High voltage transformer	1	
32A	ANE6090G10AP	High voltage capacitor	1	(NOTE 2)
32B	ANE6090B60AP	High voltage capacitor	1	(NOTE 2)
33	ANE6202-C90	Diode	1	(NOTE 3)
34	ANE6126B60AP	Power relay	1	
35	ANE6330930AP	Variable power switch	1	
36	ANE6142-780	Latch switch	2	
37	ANE6158B60AP	Short switch	1	
38	ANE6145780AC	Thermal cutout	1	For oven
39	ANE6145930AP	Thermal cutout	1	For magnetron
40	ANE6481G00AP	Oven lamp switch	1	
41	ANE6030B60AP	Oven lamp	1	

Ref.No.	Part No.	Part Name & Description	Pcs/Set	Remarks
42	ANE6152B60AP	Oven lamp socket	1	
43	ANE6230C30AQ	Fuse	1	
44	ANE6231770AP	Fuse holder	1	
45	ANE6324-820	Cushion rubber	3	
46	ANE6242B60AP	Latch switch bracket	1	
47	ANE302PB60AP	Latch switch B bracket	1	
48	ANE6241B60AP	Latch switch lever	1	
49	ANE6306910AP	Insulation sheet R	7	
50A	ANE6037G00AP	Capacitor bracket	1	(NOTE 4)
50B	ANE6037B60AP	Capacitor bracket	1	(NOTE 4)
51	ANE6125-780	Thermal cutout bracket	1	
52	ANE910AG00AP	Power supply cord	1	For NE-8020 & NE-7920 (NOTE 5)
53	ANE900CG00CP	Power supply cord	1	For NE-7920C
54	ANE9027510RN	Cord bushing	1	For NE-7920C
55	ANE9080-730	Clip	2	
56	2M157-M2	Magnetron	1	
57	ANE4120B60CP	Exhaust cover	1	For NE-7920C
58	ANE601LB60AP	Sensor element	1	
59	ANE5002910AP	Embossed ring	1	
60	ANE6040B60AP	Oven lamp sheet	1	
61	ANE6238B60AP	Spacer	1	

NOTE1: When ordering the roller A assembly, three rollers will be shipped. When replacing the roller, three rollers should be replaced at the same time. Otherwise the turntable may not turn smoothly.

NOTE2: This model has either regular size capacitor or bigger one. Please order correct part number after measuring size of defective one, otherwise the new one does not fit the bracket.

NOTE3: When ordering the diode (ANE6202-C90), you will receive either A type or B type for your order. For wiring information. Please refer to page 32.

NOTE4: This model has either regular size capacitor bracket or bigger one. Please order correct part number after measuring size of defective one, otherwise the new one does not fit the high voltage capacitor.

NOTE5: This contains a cord bushing and a cord stopper.

PACKING AND ACCESSORIES

Ref.No.	Part No.	Part Name & Description	Pcs/Set	Remarks
P1	ANE000BB60AP	Cook book	1	
P2	ANE000EG10AP	Supplemental cook book	1	
P3	ANE0003G10AP	Operating instructions	1	For NE-8020
	ANE0003G20AP	Operating instructions	1	For NE-7920
	ANE0003G20CP	Operating instructions	1	For NE-7920C
P4	ANE0013G00AP	Warranty card	1	For NE-8020 NE-7920
	ANE0013910CP	Warranty card	1	For NE-7920C
P5	ANE0169521AP	Servicenter list	1	For NE-8020 NE-7920
	ANE0169B60CP	Servicenter list	1	For NE-7920C
P6	ANE0170G10AP	Door label	1	For NE-8020
	ANE0170G20AP	Door label	1	For NE-7920
P7	ANE0102G10AP	Outer case	1	For NE-8020
	ANE0102G20AP	Outer case	1	For NE-7920
	ANE0102G20CP	Outer case	1	For NE-7920C
P8.9	ANE010AB60AP	Filler set	1	
P10	ANE0108B60AP	Tray packing	1	
P11	ANE0113B60AP	Tray styrol	1	
P12	ANE0106910AP	Vinyl cover	1	
P13	ANE0107580AP	Door sheet	1	
P14	ANE0601B60AP	Glass cooking tray	1	
P15	ANE0602B60AP	Warming rack	1	For NE-8020 NE-7920
P16	ANE0022B60AP	Rack instruction sheet	1	For NE-8020 NE-7920

WIRING MATERIAL

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
W1	ANE030AG10AP	Lead wire harness	1	
W2	ANE0363-860	Lead wire	1	
W3	ANE0351-770	Lead wire	1	
W4	ANE0351-820	Lead wire	1	
W5	ANE0362G00AP	Lead wire	1	
W6	ANE0363G00AP	Lead wire	1	
W7	ERZC10DK241U	Varistor	1	This is assembled in lead wire harness (W1).

REF. NO.12 DOOR ASSEMBLY

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
D1	ANE302AB60AP	Door A assembly	1	
D2	ANE3002B60AP	Door B	1	
D3	ANE3085B60AP	Door C	1	
D4	ANE3275B60AP	Door C cap	3	
D5	ANE301QB60AP	Door E assembly	1	
D6	ANE3006B60AP	Upper hinge	1	
D7	ANE3031930AP	Door screen A rubber	1	
D8	ANE3145910AP	Door screen A	1	
D9	ANE3146B60AP	Door screen B	1	
D10	ANE3197B60AP	Door screen C	1	
D11	ANE300RB60AP	Door handle	1	
D12	ANE3147B60AP	Handle latch button	1	
D13	ANE3243910AP	Latch button spring	1	
D14	ANE3018B60AP	Door key A	1	
D15	ANE3019B60AP	Door key B	1	
D16	ANE3107B60AP	Door key lever	1	
D17	ANE3139B60AP	Door key lever B	1	
D18	ANE3021B60AP	Door key spring	1	
D19	ANE3088B60AP	Ferrite rubber A	1	
D20	ANE3089B60AP	Ferrite rubber B	1	
D21	ANE3130B60AP	Ferrite rubber C	2	
D22	ANE3131B60AP	Ferrite rubber D	1	
D23	ANE3056930AP	Handle pin	3	
D24	ANE3183B60AP	Ferrite metal	1	

DIGITAL PROGRAMMER CIRCUIT

Ref.No.	Part No.	Part Name & Description	Pcs/Set	Remarks
For NE-8020				
E1	ANE800LG10AP	Escutcheon base assembly	1	
E2	ANE604HG10AP	P.C.B. stopper assembly	2	
E3	ANE8225970AP	Clock button	1	
E4	ANE603NG10AP	Touch glass	1	
E5	ANE603LG10AP	Digital programmer circuit	1	
E6	ANE8249G10AP	Metal shield	1	
E7	ANE8126G10AP	Display cover	1	
For NE-7920 & NE-7920C				
T1	ANE-800LG20AP	Escutcheon base assembly	1	For NE-7920
	ANE800LG20CP	Escutcheon base assembly	1	For NE-7920C
T2	ANE6313G20AP	P.C.B.stopper	2	
T3	ANE8225G20AP	Clock button	1	
T4	ANE630YG20AP	Membrane switch assembly	1	
T5	ANE603LG20AP	Digital programmer circuit	1	
T6	ANE8249G10AP	Metal shield	1	
T7	ANE8164G20AP	Ground metal	1	
T8	ANE803MG20AP	Metal bracket	2	
T9	ANE8122G20AP	Ground metal B	1	
T10	ANE6070G20CP	Insulation sheet A	1	For NE-7920C
T11	ANE8250G20CP	Metal shield B	1	For NE-7920C

STANDARD PART

No.	Description	Part No.	Size(mm)	Q'ty	Usage
S1	Screw	XTWANE4+10B	4 x 10	4	Door A assembly
				1	Door handle
				1	Capacitor bracket
				2	Fan motor bracket A
				4	Fan motor bracket B
				2	Air guide A assembly
				1	High voltage capacitor
				2	Air guide C
				2	Cord stopper
				2	Air guide D
				2	Door hook A
				2	Door hook B
				2	Oven lamp socket

No.	Description	Part No.	Size (mm)	Q'ty	Usage
				2	Exhaust guide B assembly
				2	*Exhaust guide*
S2	Screw	XTWANE4+12E	4 x 12	7	Outer case
S3	Screw	XTWANE4+8B	4 x 8	1	Thermal cutout bracket
				2	Gear box assembly
S4	Screw	XTNANE4+10B	4 x 10	1	Fuse holder
				2	Sensor assembly
S5	Screw	XTW4+16B	4 x 16	2	Door handle
S6	Screw	XTN4+12B	4 x 12	3	Escutcheon base
				1	Ground metal (NE-7920. NE-7920C)
				4	P.C.B stopper (NE-7920.NE7920C)
				6	P.C.B stopper (NE-8020)
S7	Screw	XTCANE4+10BC	4 x 12	4	Outer panel
S8	Screw	XTWANE4+15B	4 x 15	4	Rubber foot
S9	Screw	XTWANE4+12B	4 x 12	4	Turntable cover A
				8	Base
S10	Screw	XTNANE4+12B	4 x 12	4	Digital programmer circuit (NE-7920, NE-7920C)
				6	Digital programmer circuit (NE-8020)
S11	Screw	XTN3+12B	3 x 12	2	Low voltage transformer
S12	Screw	XYN3+F18	3 x 18	2	Latch switch bracket
				2	Short switch
S13	Screw	XYN3+F30	3 x 30	2	Latch switch B
S14	Screw	XST35+10V	3.5 x 10	14	Door B
S15	Screw	XYN4+F10S	4 x 10	1	Variable power switch
S16	Screw	XYEANE4+F12S	4 x 12	2	Latch switch bracket
				2	Latch switch B bracket
S17	Screw	XSNANE4+13	4 x 13	3	Fan motor assembly
S18	Screw	XYEANE5+C12S	5 x 12	2	Upper hinge
				2	Lower hinge
				2	High voltage transformer
S19	Screw	XYN3+F10S	3 x 10	1	Power relay
S20	Screw	XTEANE3+6B	3 x 6	2	Thermal cutout (magnetron)
S21	Nut	XNWANE5ES	M5	4	Magnetron
S22	Washer	XWC5BKX	M5	2	Upper hinge
				2	Lower hinge
S23	Wire pin	XPDANE3A19KP	3 x 19	1	Door handle C
				1	Pulley A
				1	Pulley C
				2	Gear box assembly
S24	Wire pin	XPDANE8A28KP	8 x 28	1	Pulley D
S25	Washer	XWGANE8	M8	2	Pulley D

F I C H E N O. 1 1 4 2

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S/M. Order No. MOD-7904-003

S/M. Best.Nr. MOD-7904-003

Panasonic®

MATSUSHITA ELECTRIC

Printed in Japan

Fiche Nr. 1142

Nach DIN 19054 (International, NMA-Standart)
98 Nutzenseiten DIN A4 (49 Nutzenseiten DIN A3)

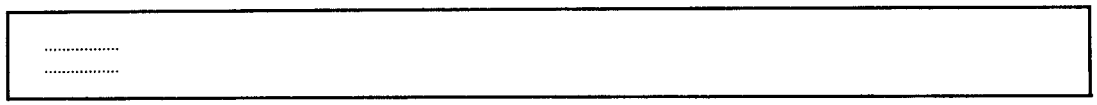
Datum 12. JUNI 1981

Inhalt

Model NE-7920
NE-7920 C
NE-8020

-mdn-Fiche-Organisation-Form 310

Kopfzeile



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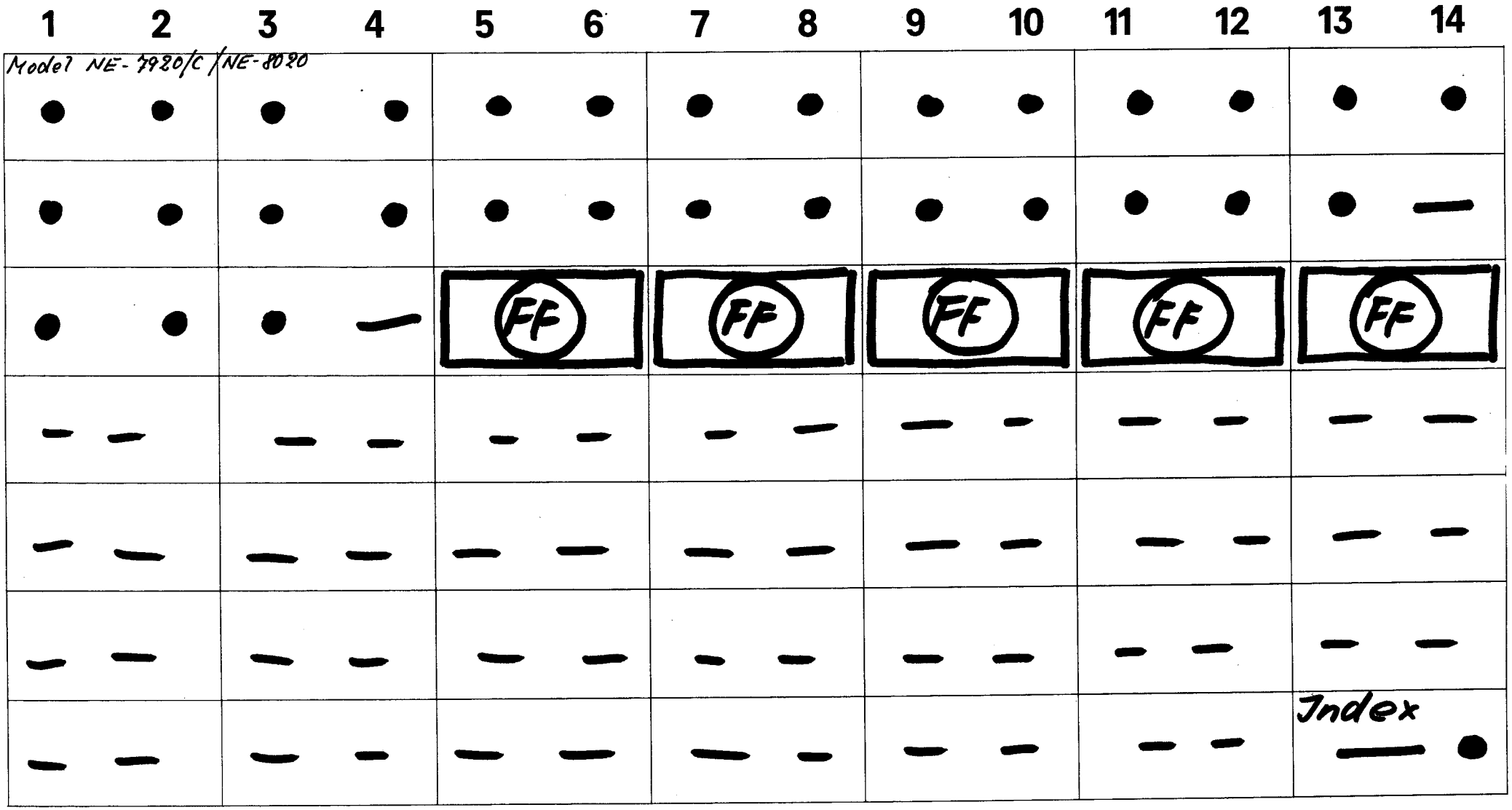
E 6=.....
E 7=.....
E 8=.....
E 9=.....
E10=.....
E11=.....
E12=.....
E13=.....
E14=.....
F 1=.....
F 2=.....
F 3=.....
F 4=.....
F 5=.....
F 6=.....
F 7=.....
F 8=.....
F 9=.....
F10=.....
F11=.....
F12=.....
F13=.....
F14=.....
G 1=.....
G 2=.....
G 3=.....
G 4=.....
G 5=.....
G 6=.....
G 7=.....
G 8=.....
G 9=.....
G10=.....
G11=.....
G12=.....
G13=.....
G14=.....

Verfilmungsplan



Leer Frame — Information A 4 • Information A 3 / A 4 quer ○

Zeichenerklärung: